

Exhibit No. 6-D, Part I
Docket No. R-2021-3027385
Docket No. R-2021-3027386
Witness: J. J. Spanos

AQUA PENNSYLVANIA, INC.

BRYN MAWR, PENNSYLVANIA

EAST BRADFORD OPERATIONS

2021 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WASTEWATER PLANT
AS OF MARCH 31, 2021

Prepared by:



Gannett Fleming

*Excellence Delivered **As Promised***

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Bryn Mawr, Pennsylvania

EAST BRADFORD OPERATIONS

2021 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WASTEWATER PLANT
AS OF MARCH 31, 2021

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



Gannett Fleming

*Excellence Delivered **As Promised***

August 13, 2021

Aqua Pennsylvania, Inc.
762 Lancaster Avenue
Bryn Mawr, PA 19010

Attention: William C. Packer
Vice President, Regulatory Accounting & Regional Controller

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of March 31, 2021 for the East Bradford Operations. Summaries of the original cost, annual accruals and the book depreciation reserve are presented in Tables 1 and 2, beginning on page I-3 of the attached report.

A description of the methods and procedures upon which the study was based, as well as support for the service life estimates, is set forth in a companion report "2022 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of March 31, 2022".

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

JOHN J. SPANOS
President

JJS:mle

067880.100

Gannett Fleming Valuation and Rate Consultants, LLC

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PART I. RESULTS OF STUDY

AQUA PENNSYLVANIA, INC.

WASTEWATER ASSETS

DEPRECIATION STUDY

PART I. RESULTS OF STUDY

SUMMARY OF RESULTS

Table 1 summarizes the results of the depreciation study, which sets forth the book reserve and the calculated annual depreciation related to original cost as of March 31, 2021, and the annual amortization of negative salvage for the East Bradford Operations system. Table 2 presents the calculation of the amortization of experienced net salvage, by account, based on the five-year period, 2016-2020.

DETAILED TABULATIONS OF DEPRECIATION CALCULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-2. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage, and cost of removal are set forth by account for the years 2016 through 2020, on page III-2.

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF MARCH 31, 2021

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF MARCH 31, 2021 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	ANNUAL ACCRUAL AMOUNT (6)	COMPOSITE REMAINING LIFE (7)	ANNUAL ACCRUAL RATE, PERCENT (8)
INTANGIBLE PLANT							
351.00 ORGANIZATION	NONDEPR.	247,094.64					
TOTAL INTANGIBLE PLANT		247,094.64					
NONDEPRECIABLE PLANT							
353.30 LAND AND LAND RIGHTS - PUMPING	NONDEPR.	57,797.65					
TOTAL NONDEPRECIABLE PLANT		57,797.65					
DEPRECIABLE PLANT							
354.00 STRUCTURES AND IMPROVEMENTS							
COLLECTION	55-S0.5	1,959,966.32	492,250	1,467,716	43,029	34.1	2.20
PUMPING	60-S1	450,011.53	198,929	251,082	7,532	33.3	1.67
TREATMENT AND DISPOSAL	50-R2	133.52	133	0	0	-	-
TOTAL ACCOUNT 354		2,410,111.37	691,313	1,718,798	50,561		
355.00 POWER GENERATING EQUIPMENT							
TREATMENT AND DISPOSAL	25-R2.5	124,051.92	61,157	62,895	5,137	12.2	4.14
TOTAL ACCOUNT 355		124,051.92	61,157	62,895	5,137		
360.00 COLLECTION MAINS - FORCE	75-R2.5	672,708.43	263,793	408,916	9,249	44.2	1.37
361.00 COLLECTION MAINS - GRAVITY	75-R2.5	3,757,694.32	1,666,829	2,090,866	49,665	42.1	1.32
363.00 SERVICES	70-R4	422,736.92	230,682	192,055	4,929	39.0	1.17
364.00 METERS	25-S2.5	20,924.15	6,972	13,952	946	14.7	4.52
371.30 PUMPING EQUIPMENT	25-L0.5	132,810.96	132,811	0	0	-	-
TOTAL ACCOUNT 371.3		132,810.96	132,811	0	0		
380.00 TREATMENT AND DISPOSAL EQUIPMENT	40-S0	27,787.99	3,806	23,982	984	24.4	3.54
396.70 COMMUNICATION EQUIPMENT - SCADA	10-SQ	175,059.52	15,775	159,284	17,220	9.2	*
TOTAL DEPRECIABLE PLANT		7,743,885.58	3,073,138	4,670,748	138,691		
TOTAL WASTEWATER PLANT IN SERVICE		8,048,777.87	3,073,138	4,670,748	138,691		

* ACCRUALS CALCULATED FOR EACH ASSET BY THE COMPANY'S PROPERTY RECORD SYSTEM USING THE AMORTIZATION PERIOD SET FORTH IN COLUMN 2.



AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

TABLE 2. AMORTIZATION OF EXPERIENCED NET SALVAGE

ACCOUNT (1)	2016		2017		2018		2019		2020		NET SALVAGE (12)*	SALVAGE ACCRUAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)		
354.20	-	-	-	-	-	-	-	-	-	-	-	0
354.30	-	-	-	-	-	-	-	-	-	-	-	0
354.40	-	-	-	-	-	-	-	-	-	-	-	0
361.00	-	-	-	-	-	-	-	-	-	-	-	0
363.00	-	-	-	-	-	-	-	-	-	-	-	0
371.30	-	-	-	-	-	-	-	-	-	-	-	0
380.00	-	-	-	-	-	-	-	-	-	-	-	0
TOTAL	-	-	-	-	-	-	-	-	-	-	-	0

* COLUMN (12) EQUALS THE SUMMATION OF COLUMNS (2) THROUGH (11).

PART II. DETAILED DEPRECIATION CALCULATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED
RELATED TO ORIGINAL COST AS OF MARCH 31, 2021

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
1978	12,371	7,150	5,221	5,221	0.1
1990	3,491,613	1,670,335	1,821,278	1,826,499	37.7
1993	829,994	354,115	475,879	2,302,378	47.5
1995	393,206	180,947	212,259	2,514,637	51.9
1998	18,247	6,524	11,723	2,526,360	52.1
2001	275,008	112,483	162,525	2,688,885	55.5
2006	293,294	96,022	197,272	2,886,157	59.6
2011	1,961,299	380,535	1,580,764	4,466,920	92.2
2012	48,536	7,227	41,309	4,508,229	93.1
2014	53,863	6,304	47,559	4,555,788	94.0
2015	66,980	15,969	51,011	4,606,799	95.1
2020	258,287	20,061	238,226	4,845,026	100.0
SUBTOTAL	7,702,696	2,857,671	4,845,026		
NONDEPRECIABLE	382,537				
TOTAL	8,085,234	2,857,671	4,845,026		



UTILITY PLANT IN SERVICE

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 354.2 STRUCTURES AND IMPROVEMENTS - COLLECTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0.5						
NET SALVAGE PERCENT.. 0						
2011	1,961,298.58	435,997	380,535	1,580,764	34.11	46,343
	1,961,298.58	435,997	380,535	1,580,764		46,343
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						34.1 2.36

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 354.3 STRUCTURES AND IMPROVEMENTS - PUMPING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-S1						
NET SALVAGE PERCENT.. 0						
1990	47,507.01	24,837	28,007	19,500	28.07	695
1995	114,413.91	52,447	59,142	55,272	30.43	1,816
2001	132,442.30	49,176	55,453	76,989	33.44	2,302
2006	155,648.31	44,998	50,742	104,907	36.27	2,892
	450,011.53	171,458	193,344	256,668		7,705
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 33.3 1.71						

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 355.4 POWER GENERATING EQUIPMENT - TREATMENT AND DISPOSAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-R2.5						
NET SALVAGE PERCENT.. 0						
1995	22,006.42	18,303	17,037	4,969	5.21	954
2001	22,167.39	15,805	14,711	7,456	7.95	938
2006	26,245.45	15,136	14,089	12,156	10.83	1,122
2015	50,889.33	13,109	12,202	38,687	16.57	2,335
	121,308.59	62,353	58,039	63,269		5,349
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.8 4.41						

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 360 COLLECTION MAINS - FORCE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R2.5						
NET SALVAGE PERCENT.. 0						
1978	12,371.32	6,928	7,150	5,221	33.59	155
1990	268,673.46	114,831	118,510	150,163	41.19	3,646
1993	13,922.15	5,485	5,661	8,261	42.68	194
1995	224,862.52	82,794	85,446	139,417	44.18	3,156
2001	75,239.45	21,842	22,541	52,698	48.28	1,092
2006	77,639.52	17,290	17,844	59,795	51.48	1,162
	672,708.42	249,170	257,152	415,556		9,405
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						44.2 1.40

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 361 COLLECTION MAINS - GRAVITY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R2.5						
NET SALVAGE PERCENT.. 0						
1990	2,799,244.94	1,196,397	1,296,571	1,502,674	41.19	36,482
1993	816,071.82	321,532	348,454	467,618	42.68	10,956
1998	18,246.67	6,020	6,524	11,723	46.21	254
2001	2,348.25	682	739	1,609	48.28	33
2006	3,207.70	714	774	2,434	51.48	47
2012	48,535.62	6,669	7,227	41,309	54.94	752
2014	53,863.29	5,817	6,304	47,559	55.75	853
2020	16,176.03	217	236	15,941	55.43	288
	3,757,694.32	1,538,048	1,666,829	2,090,866		49,665
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						42.1 1.32

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 363 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R4						
NET SALVAGE PERCENT.. 0						
1990	346,775.91	157,818	202,422	144,354	36.82	3,921
1995	19,929.19	7,697	9,872	10,057	40.92	246
2001	34,441.58	10,270	13,173	21,269	46.48	458
2006	18,080.24	4,026	5,164	12,916	51.48	251
2020	3,510.00	40	51	3,459	65.04	53
	422,736.92	179,851	230,682	192,055		4,929
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						39.0 1.17

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 364 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-S2.5						
NET SALVAGE PERCENT.. 0						
1990	1,886.24	1,688	1,565	321	3.62	89
2006	2,947.59	1,769	1,641	1,307	9.82	133
2015	16,090.32	4,061	3,766	12,324	17.03	724
	20,924.15	7,518	6,972	13,952		946
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 14.7 4.52						

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 371.3 PUMPING EQUIPMENT - PUMPING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-L0.5						
NET SALVAGE PERCENT.. 0						
1990	27,525.08	20,905	23,260	4,265	9.74	438
1995	11,994.40	8,493	9,450	2,544	10.61	240
2001	8,368.93	5,272	5,866	2,503	11.60	216
2006	9,524.87	5,184	5,768	3,757	12.35	304
2020	63,541.01	3,355	3,734	59,807	13.45	4,447
	120,954.29	43,209	48,078	72,877		5,645
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.9						4.67

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 396.7 COMMUNICATION EQUIPMENT - SCADA

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2020	175,059.52	13,129	16,041	159,019	9.25	17,191
	175,059.52	13,129	16,041	159,019		17,191
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.3						9.82

PART III. EXPERIENCED NET SALVAGE

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

EXPERIENCED RETIREMENTS BY ACCOUNT AND ASSOCIATED
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2016 TRANSACTION YEAR				
2017 TRANSACTION YEAR				
2018 TRANSACTION YEAR				
2019 TRANSACTION YEAR				
354.40	2,265.38			
	2,265.38			
2020 TRANSACTION YEAR				
354.20	1,332.26			
371.30	20,865.62			
	22,197.88			
TOTAL	24,463.26			

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AQUA PENNSYLVANIA, INC.

BRYN MAWR, PENNSYLVANIA

EAST BRADFORD OPERATIONS

2022 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO WASTEWATER PLANT

AS OF MARCH 31, 2022

Prepared by:



Gannett Fleming

Excellence Delivered **As Promised**

Exhibit No. 6-D, Part II
Docket No. R-2021-3027385
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AQUA PENNSYLVANIA, INC.

Bryn Mawr, Pennsylvania

EAST BRADFORD OPERATIONS

2022 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WASTEWATER PLANT
AS OF MARCH 31, 2022

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



*Excellence Delivered **As Promised***

August 13, 2021

Aqua Pennsylvania, Inc.
762 Lancaster Avenue
Bryn Mawr, PA 19010

Attention: William C. Packer
Vice President, Regulatory Accounting & Regional Controller

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of March 31, 2022 for the East Bradford Operations. The results of our study as of March 31, 2022, are presented in the attached report. The results of our study as of March 31, 2021, are presented in our report, "2021 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of March 31, 2021." The same methods, procedures and estimates are used in both studies.

The attached report sets forth a description of the methods and procedures upon which the studies were based, the estimates of survivor curves, and the calculated annual depreciation as of March 31, 2022.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

A handwritten signature in black ink that reads "John J. Spanos".

JOHN J. SPANOS
President

JJS:mle

067880.100

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PART I. INTRODUCTION

AQUA PENNSYLVANIA, INC.

DEPRECIATION STUDY

PART I. INTRODUCTION

SCOPE

This report sets forth the results of the depreciation study for Aqua Pennsylvania, Inc. to determine the annual depreciation accrual rates and amounts applicable to the original cost of wastewater plant as of March 31, 2022 for the East Bradford Operations system. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to wastewater plant in service as of March 31, 2022.

Part I, Introduction, contains statements with respect to the basis of the study and the development of net original cost. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and methods used in the service life study. Part III, Service Life Considerations, presents the results of the average service life analysis. Part IV, Calculation of Annual and Accrued Depreciation, describes the procedures used in the calculation of group depreciation. Part V, Results of Study, presents summaries by depreciable group of annual depreciation accrual rates and amounts, as well as composite remaining lives. Part VI, Service Life Statistics presents the statistical analysis of service life estimates, Part VII, Detailed Depreciation Calculations presents the detailed tabulations of annual depreciation and Part VIII, Experienced and Estimated Net Salvage presents the cost of removal and gross salvage recorded for the period 2017-2021.

BASIS OF THE STUDY

The purpose of the depreciation study was to determine the annual depreciation accruals applicable to the original cost of wastewater plant in service as of March 31, 2022. For most accounts, the straight line remaining life method using attained ages, the book depreciation reserve and estimated survivor curves, was the basis for the calculation of annual depreciation. For certain accounts, the annual and accrued amortization amounts were based on the age of the property and the selected amortization period.

The survivor curve estimates were based on judgment which incorporated (1) analyses of historical data related to wastewater property for all wastewater systems; (2) consideration of the character, use and location of the property; (3) probable future events and management plans; and (4) a general knowledge of wastewater property lives. The use of Iowa type survivor curves is a generally-accepted method of estimating average service life when the actual lives of individual property units are dispersed.

PART II. ESTIMATION OF SURVIVOR CURVES

PART II. ESTIMATION OF SURVIVOR CURVES

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

SURVIVOR CURVES

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units or by constructing a survivor curve by plotting the number of units which survive at successive ages.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

This study has incorporated the use of Iowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

Iowa Type Curves

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements (or the portion of the frequency curve with the highest level of retirements) in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family. A higher number designates a higher mode curve.

The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.

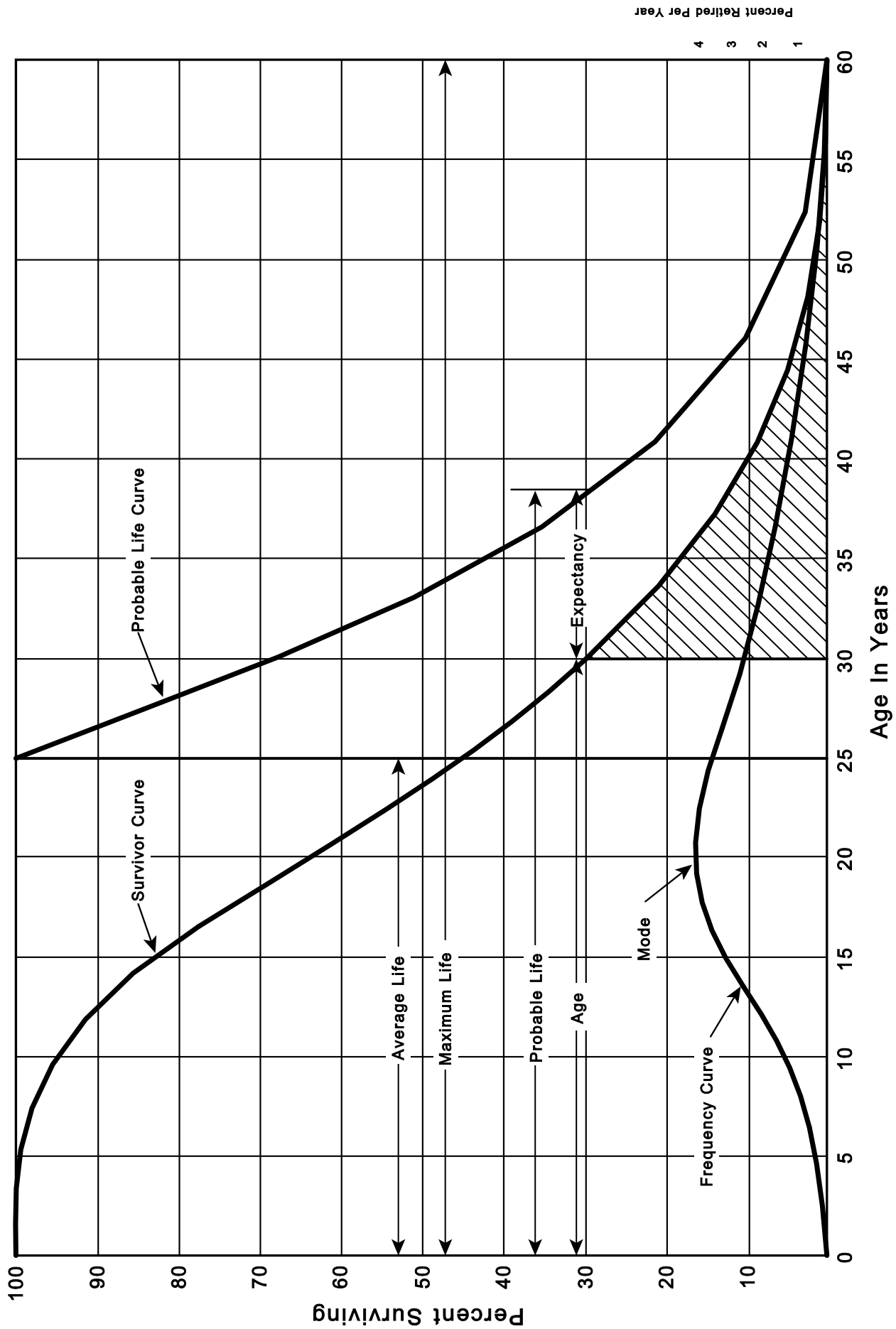


Figure 1. A Typical Survivor Curve and Derived Curves

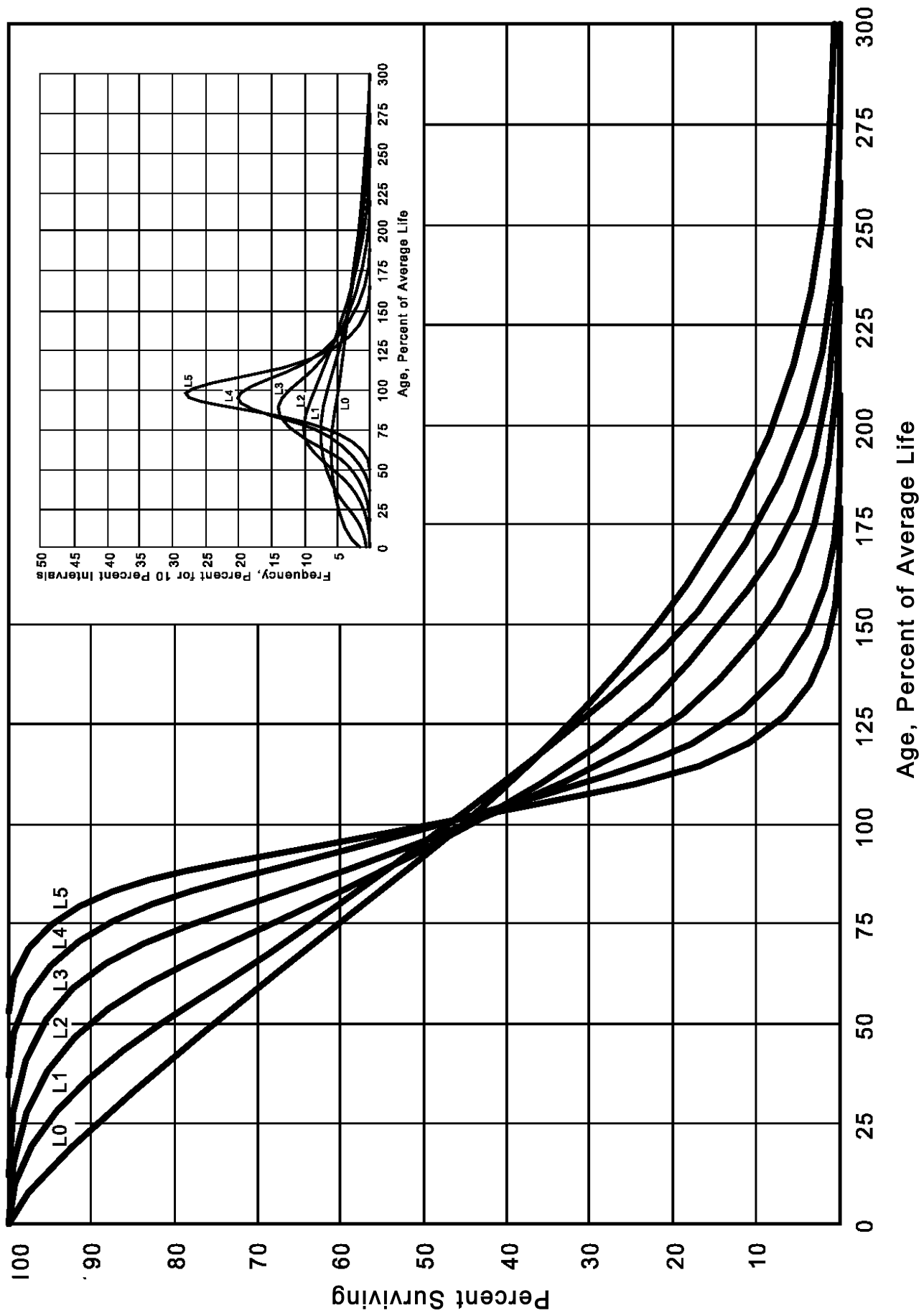


Figure 2. Left Modal or "L" Iowa Type Survivor Curves

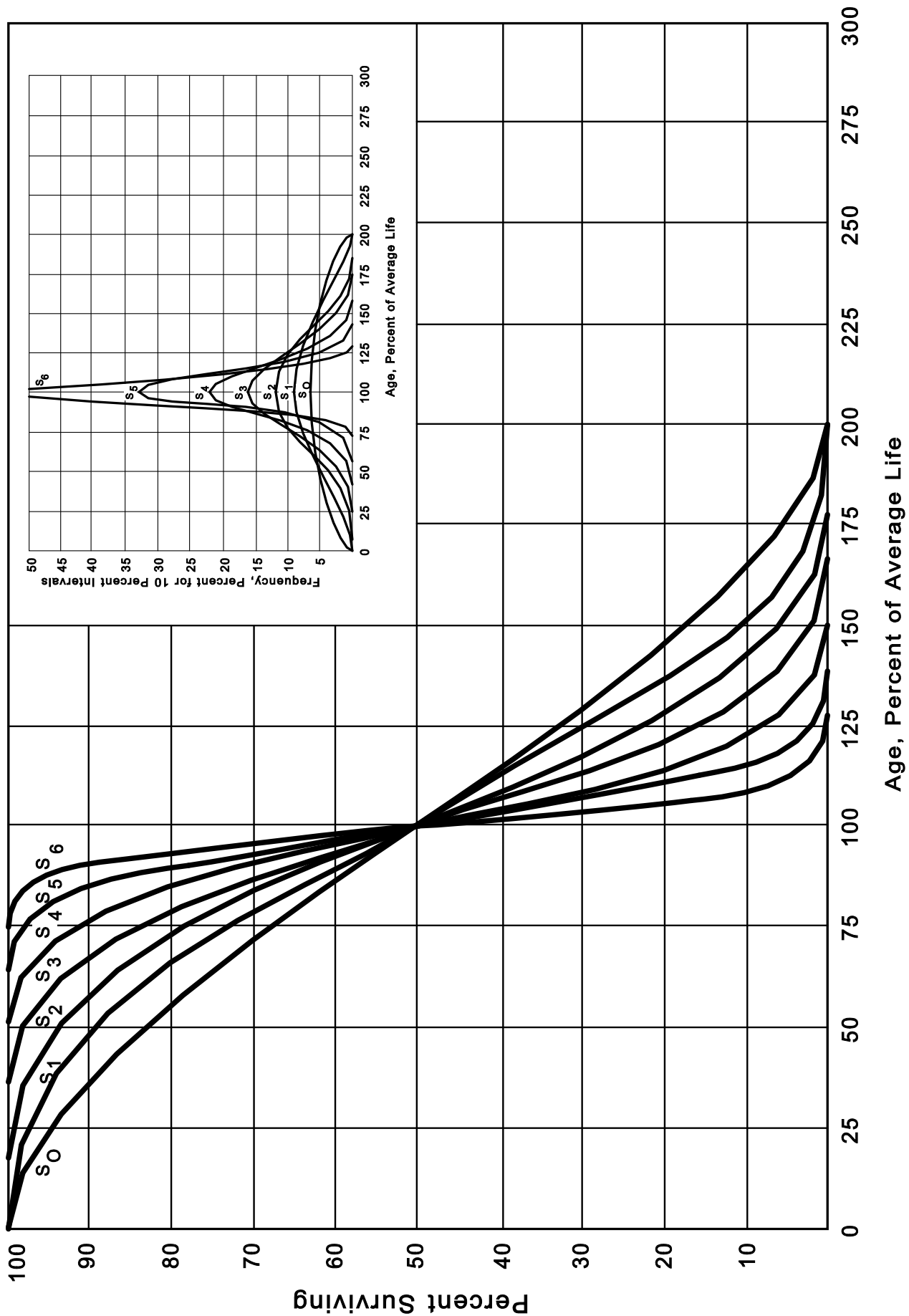


Figure 3. Symmetrical or "S" Iowa Type Survivor Curves

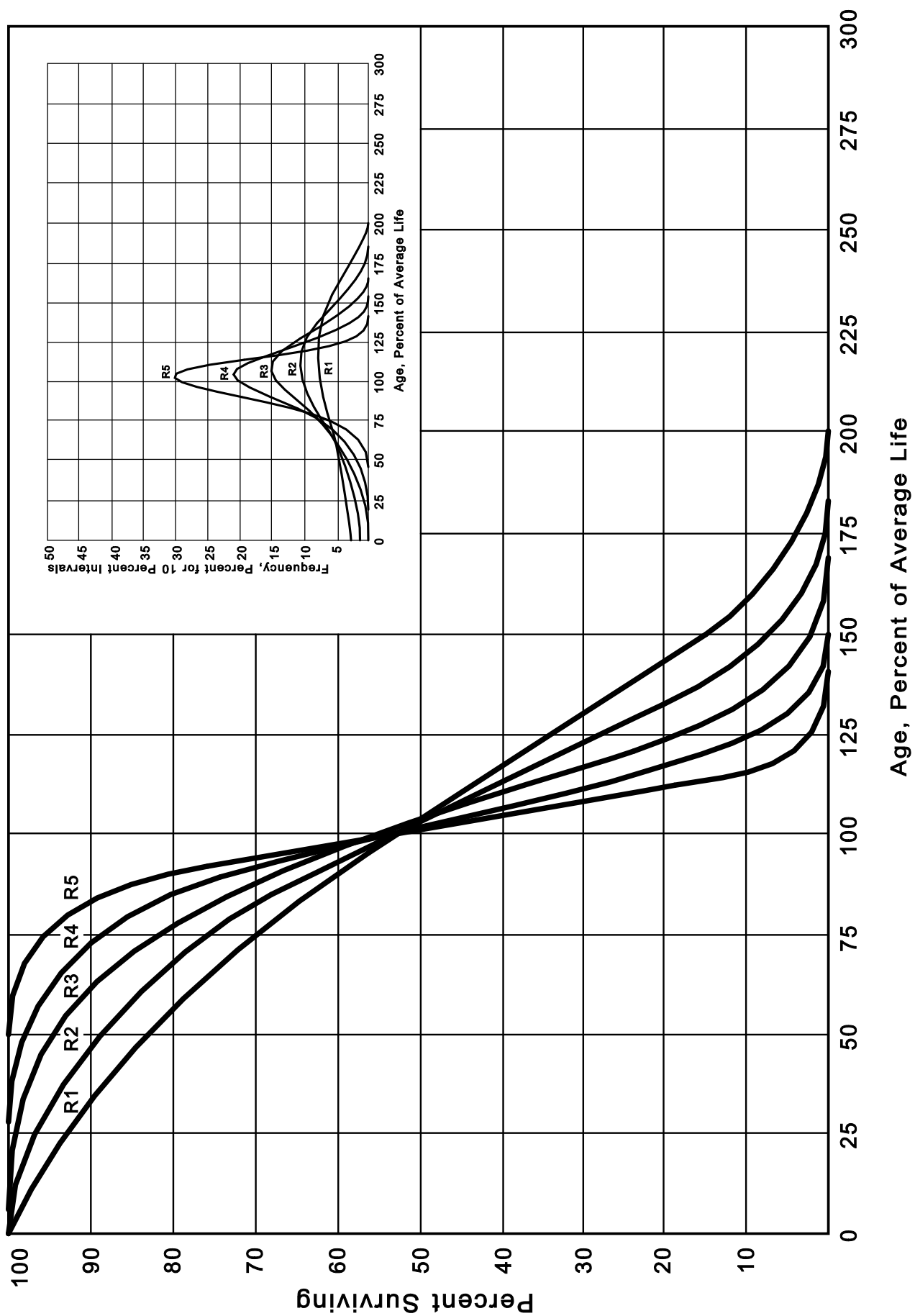


Figure 4. Right Modal or "R" Iowa Type Survivor Curves

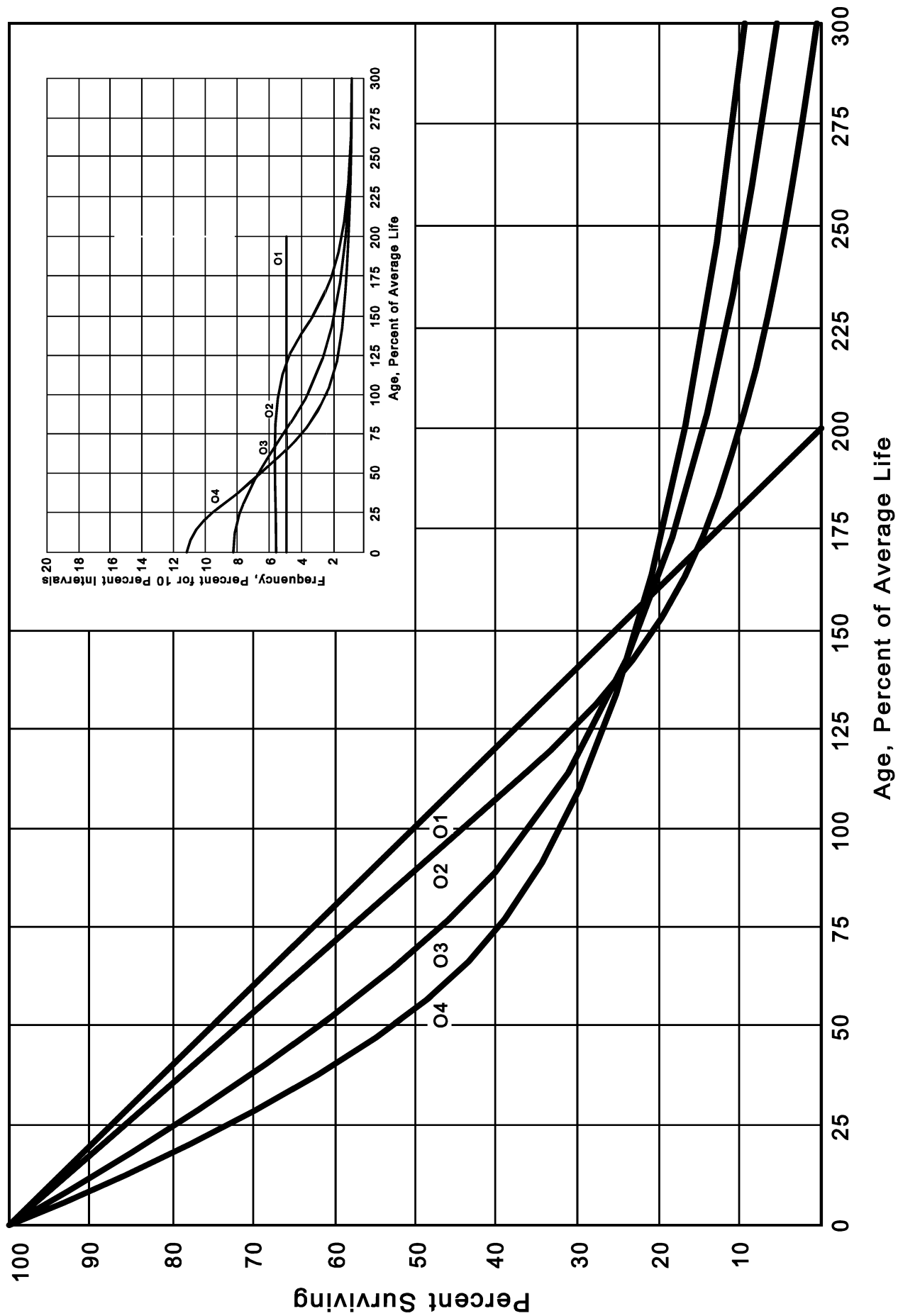


Figure 5. Origin Modal or "O" Iowa Type Survivor Curves

These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."¹ In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

Retirement Rate Method of Analysis

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text and is also explained in several publications including "Statistical Analyses of Industrial Property Retirements,"² "Engineering Valuation and Depreciation,"³ and "Depreciation Systems."⁴

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band. The band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

¹Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

²Winfrey, Robley, Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

³Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

⁴Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

Schedules of Annual Transactions in Plant Records

The property group used to illustrate the retirement rate method is observed for the experience band 2011-2020 for which there were placements during the years 2006-2020. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2006 were retired in 2011. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2011 retirements of 2006 installations and ending with the 2020 retirements of the 2015 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2011-2020
SUMMARIZED BY AGE INTERVAL

Experience Band 2011-2020		Retirements, Thousands of Dollars										Placement Band 2006-2020	
Year		During Year										Total During	
Placed	Age	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Age Interval	Age Interval
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
2006	10	11	12	13	14	16	23	24	25	26	26	13½-14½	26
2007	11	12	13	15	16	18	20	21	22	19	19	12½-13½	44
2008	11	12	13	14	16	17	19	21	22	18	18	11½-12½	64
2009	8	9	10	11	11	13	14	15	16	17	17	10½-11½	83
2010	9	10	11	12	13	14	16	17	19	20	20	9½-10½	93
2011	4	9	10	11	12	13	14	15	16	20	20	8½-9½	105
2012		5	11	12	12	13	14	16	18	20	20	7½-8½	113
2013			6	12	12	13	15	17	19	19	19	6½-7½	124
2014				6	6	13	15	17	19	19	19	5½-6½	131
2015						7	14	16	19	20	20	4½-5½	143
2016						8	18	20	22	23	23	3½-4½	146
2017							9	20	22	25	25	2½-3½	150
2018								11	23	25	25	1½-2½	151
2019									11	24	24	½-1½	153
2020										13	13	0-½	80
Total	53	68	86	106	128	157	196	231	273	308	1,606		



SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2011-2020
SUMMARIZED BY AGE INTERVAL

Experience Band 2011-2020											Placement Band 2006-2020	
Acquisitions, Transfers and Sales, Thousands of Dollars												
Year Placed (1)	During Year										Total During Age Interval (12)	Age Interval (13)
	2011 (2)	2012 (3)	2013 (4)	2014 (5)	2015 (6)	2016 (7)	2017 (8)	2018 (9)	2019 (10)	2020 (11)		
2006	-	-	-	-	-	-	60 ^a	-	-	-	-	13½-14½
2007	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2008	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2009	-	-	-	-	-	-	-	(5) ^b	-	-	60	10½-11½
2010	-	-	-	-	-	-	-	6 ^a	-	-	-	9½-10½
2011	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
2012	-	-	-	-	-	-	-	-	-	-	6	7½-8½
2013	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2014	-	-	-	-	-	-	-	(12) ^b	-	-	-	5½-6½
2015	-	-	-	-	-	-	-	-	22 ^a	-	-	4½-5½
2016	-	-	-	-	-	-	-	(19) ^b	-	-	10	3½-4½
2017	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2018	-	-	-	-	-	-	-	-	-	(102) ^c	(121)	1½-2½
2019	-	-	-	-	-	-	-	-	-	-	-	½-1½
2020	-	-	-	-	-	-	-	-	-	-	-	0-½
Total	-	-	-	-	-	-	60	(30)	22	(102)	(50)	

^a Transfer Affecting Exposures at Beginning of Year^b Transfer Affecting Exposures at End of Year^c Sale with Continued Use

Parentheses Denote Credit Amount.

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

Schedule of Plant Exposed to Retirement

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2011 through 2020 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2016 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age ½	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½	= \$742,000 - \$18,000	= \$724,000
Exposures at age 2½	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½	= \$685,000 - \$22,000	= \$663,000

SCHEDULE 3. PLANT EXPOSED TO RETIREMENT
JANUARY 1 OF EACH YEAR 2011-2020
SUMMARIZED BY AGE INTERVAL

Experience Band 2011-2020

Year	Exposures, Thousands of Dollars										Total at		
	Annual Survivors at the Beginning of the Year										Beginning of	Age	
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Age Interval	Interval	
Placed	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2006		255	245	234	222	209	195	239	216	192	167	167	13½-14½
2007		279	268	256	243	228	212	194	174	153	131	323	12½-13½
2008		307	296	284	271	257	241	224	205	184	162	531	11½-12½
2009		338	330	321	311	300	289	276	262	242	226	823	10½-11½
2010		376	367	357	346	334	321	307	297	280	261	1,097	9½-10½
2011		420 ^a	416	407	397	386	374	361	347	332	316	1,503	8½-9½
2012			460 ^a	455	444	432	419	405	390	374	356	1,952	7½-8½
2013				510 ^a	504	492	479	464	448	431	412	2,463	6½-7½
2014					580 ^a	574	561	546	530	501	482	3,057	5½-6½
2015						660 ^a	653	639	623	628	609	3,789	4½-5½
2016							750 ^a	742	724	685	663	4,332	3½-4½
2017								850 ^a	841	821	799	4,955	2½-3½
2018									960 ^a	949	926	5,719	1½-2½
2019										1,080 ^a	1,069	6,579	½-1½
2020											1,220 ^a	7,490	0-½
Total		1,975	2,382	2,824	3,318	3,872	4,494	5,247	6,017	6,852	7,799	44,780	

Placement Band 2006-2020

^aAdditions during the year

For the entire experience band 2011-2020, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

Original Life Table

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15	
Exposures at age 4½	=	3,789,000	
Retirements from age 4½ to 5½	=	143,000	
Retirement Ratio	=	143,000 ÷ 3,789,000	= 0.0377
Survivor Ratio	=	1.000 - 0.0377	= 0.9623
Percent surviving at age 5½	=	(88.15) x (0.9623)	= 84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

SCHEDULE 4. ORIGINAL LIFE TABLE
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2011-2020

Placement Band 2006-2020

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u>167</u>	<u>26</u>	0.1557	0.8443	42.24
					35.66
Total	<u>44,780</u>	<u>1,606</u>			

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.

The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

Smoothing the Original Survivor Curve

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group.

FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE
ORIGINAL AND SMOOTH SURVIVOR CURVES

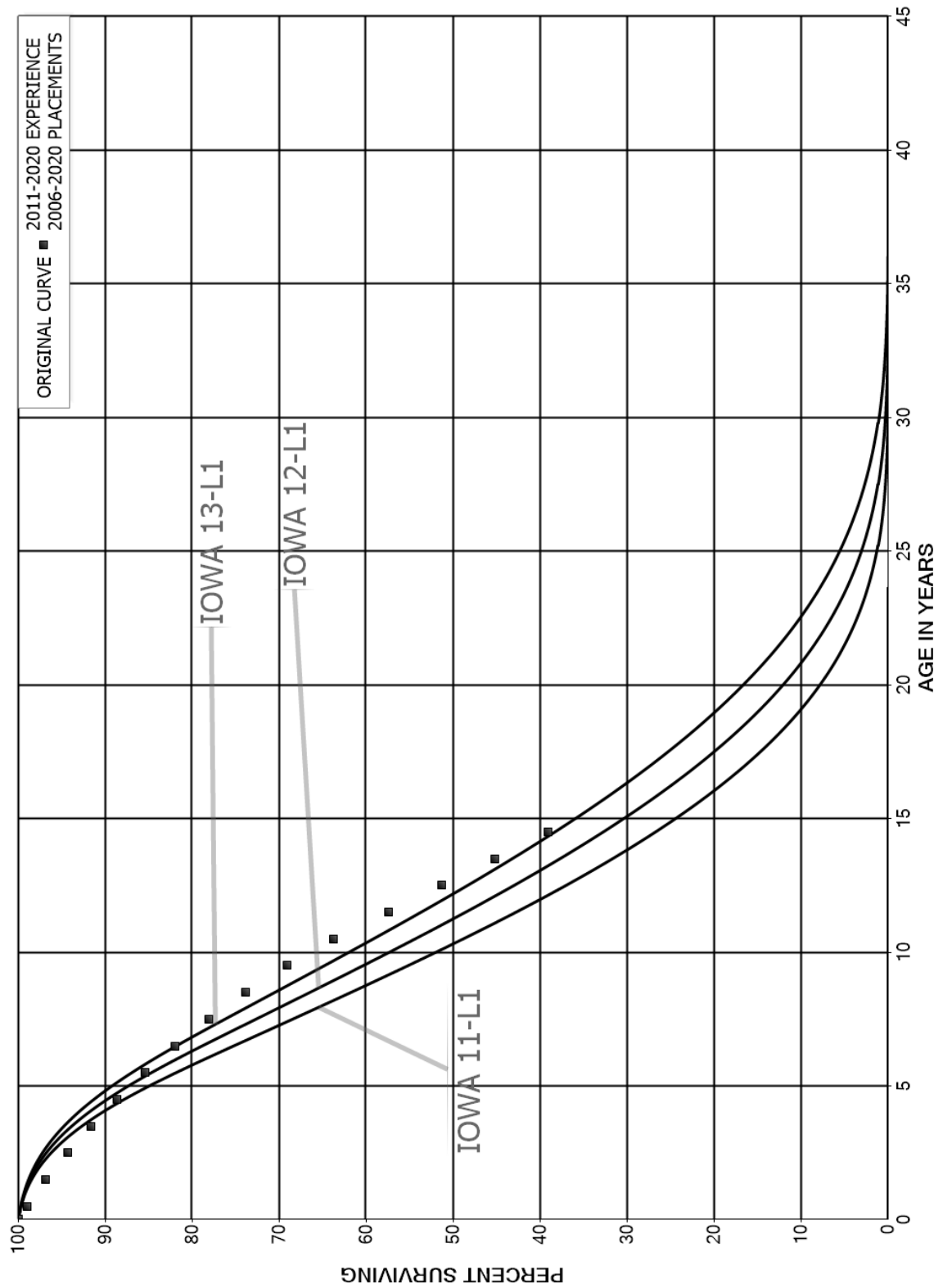


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE
ORIGINAL AND SMOOTH SURVIVOR CURVES

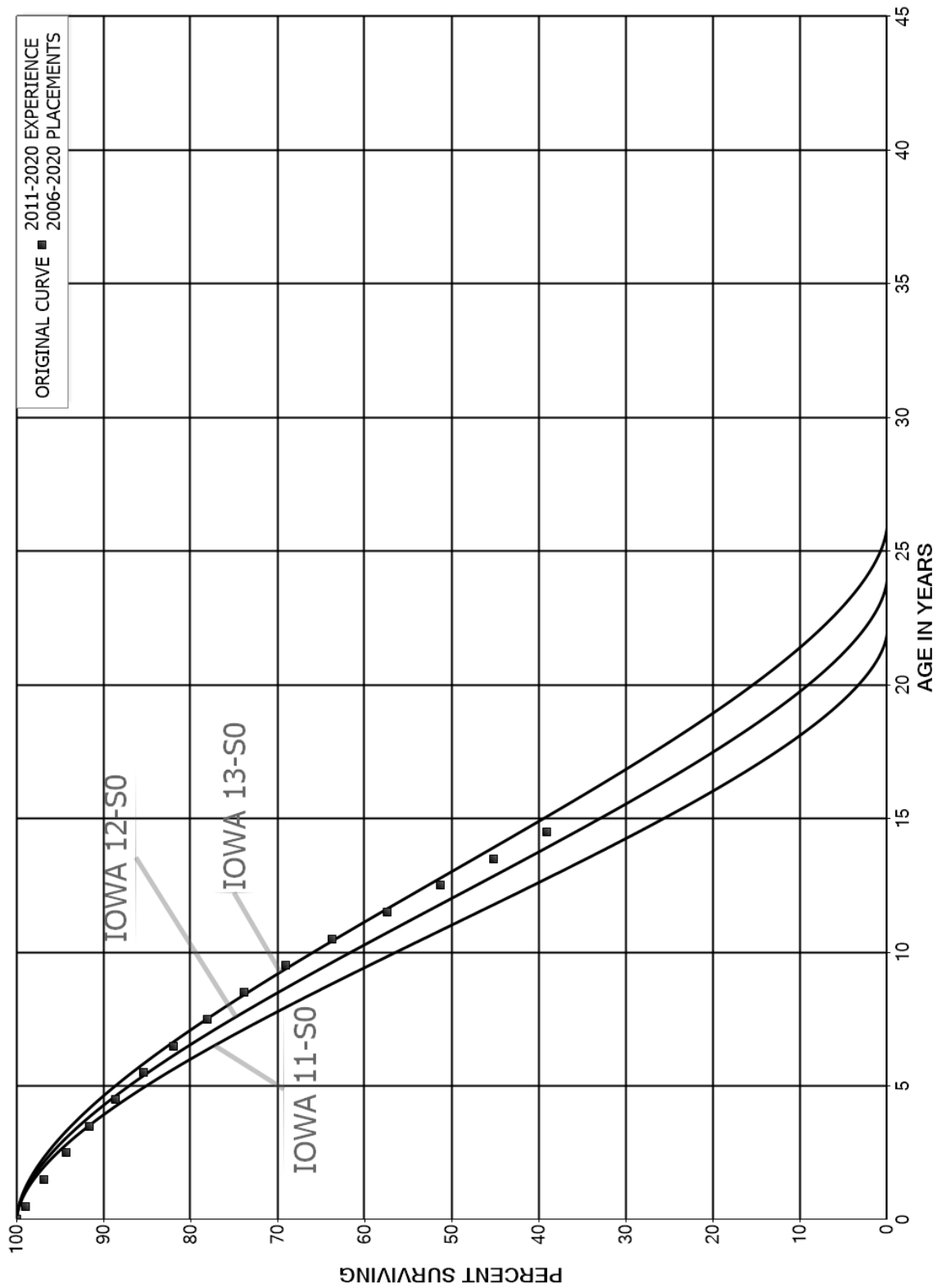


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE
ORIGINAL AND SMOOTH SURVIVOR CURVES

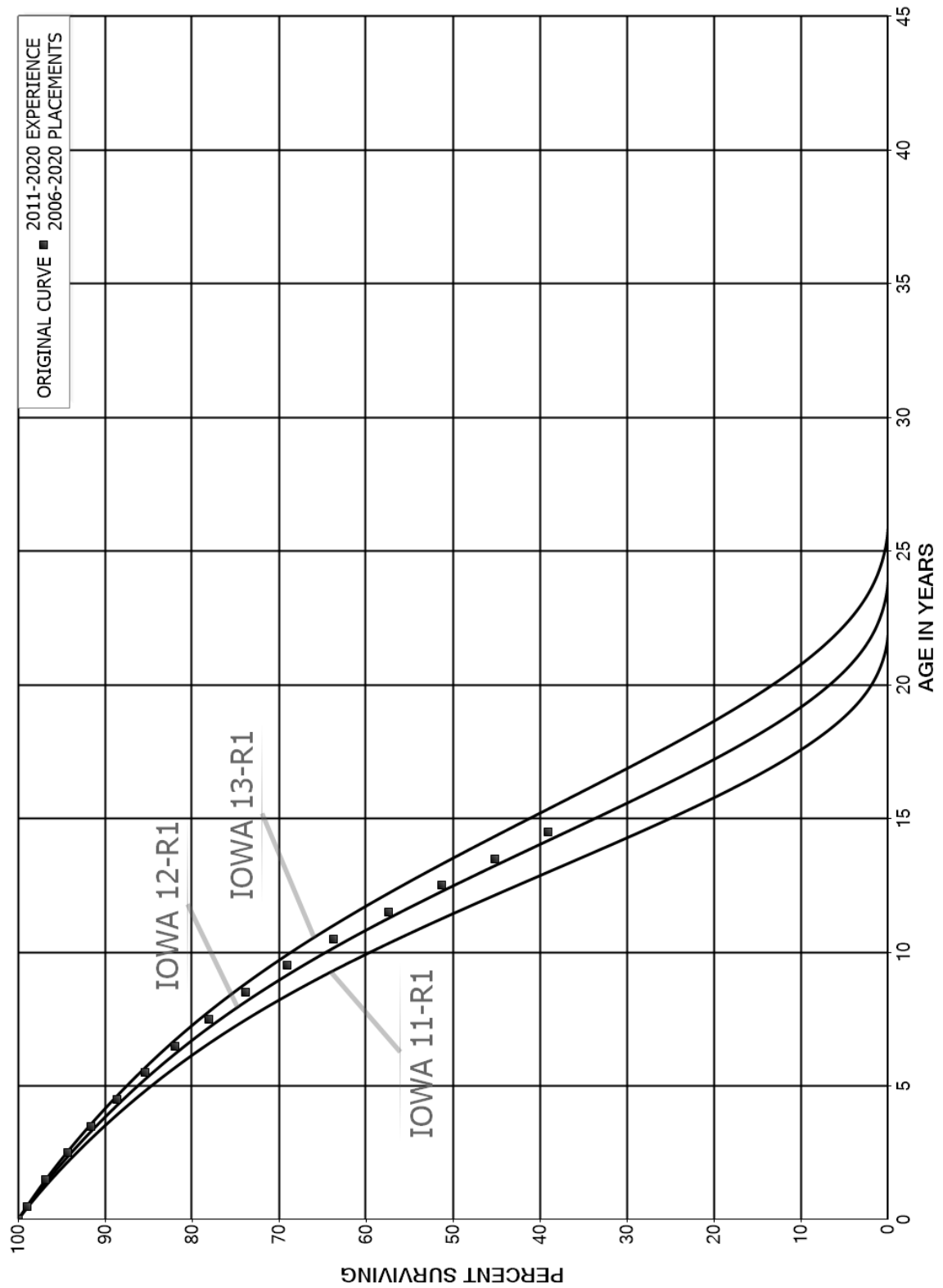
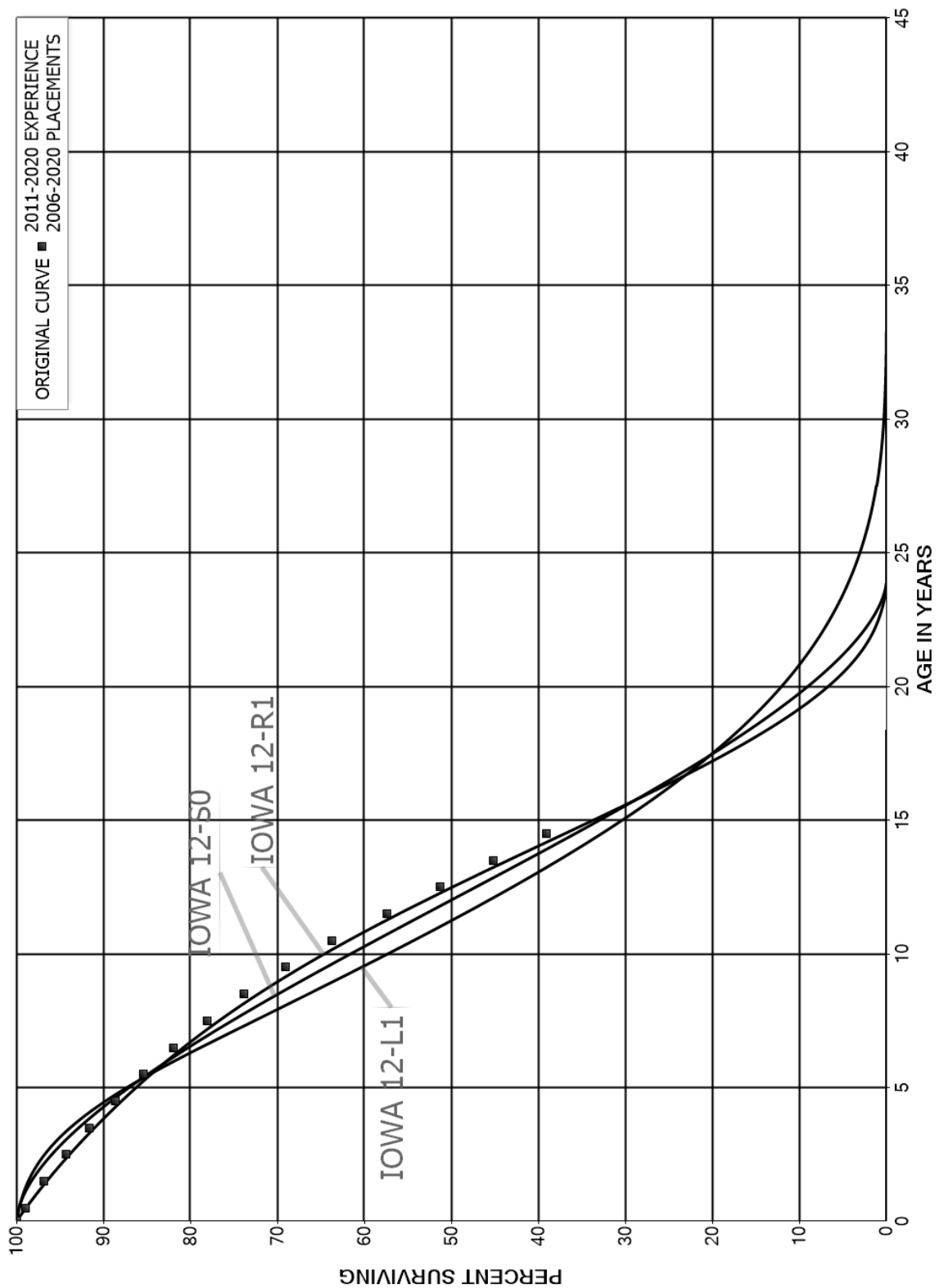


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE
ORIGINAL AND SMOOTH SURVIVOR CURVES



PART III. SERVICE LIFE CONSIDERATIONS

PART III. SERVICE LIFE CONSIDERATIONS

Judgments

The survivor curve estimates were based on judgment which considered factors including statistical analyses of retirements, Company policies and outlook as determined during discussions with management, and survivor curve estimates from previous studies of the other Aqua Pennsylvania wastewater systems. For depreciable groups which consist of numerous similar items of property, the distribution of the lives of the units in the group was judged on the basis of an average survival pattern for the entire group.

The amortization period selected for general plant Account 396 is discussed in the section, "Amortization of General Plant Accounts."

PART IV. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

PART IV. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

BOOK RESERVE

The book reserve as of March 31, 2021, is the result of a bringforward of the book reserves established by the Commission for the East Bradford wastewater operations at the time of acquisition. The projected book reserve as of March 31, 2022, is a bringforward of the March 31, 2021 book reserve based on projected accruals, retirements, cost of removal, salvage and other credits.

CALCULATION OF DEPRECIATION

The annual depreciation accruals as of March 31, 2022, are based on the straight line remaining life method and the equal life group procedure. For the purpose of calculating the remaining life accruals as of March 31, 2022, the book reserve is allocated among vintages in proportion to the calculated accrued depreciation as of March 31, 2022.

Group Depreciation Procedures

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally, the items within a group do not have identical service lives but have lives that are dispersed over a range of time.

In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas

the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

In the equal life group procedure, the property group is subdivided according to service life. That is, each equal life group includes that portion of the property which experiences the life of that specific group. The relative size of each equal life group is determined from the property's life dispersion curve. This procedure eliminates the need to base depreciation on average lives, inasmuch as each group is equivalent to a unit having a single life. The full costs of short-lived units are accrued during their lives, leaving no deferral of accruals required to be added to the annual costs associated with long-lived units. The calculated depreciation for the property group is the summation of the calculated depreciation based on the service life of each equal life group.

Remaining Life Annual Accruals

For the purpose of calculating remaining life accrual rates as of March 31, 2022, the estimated book depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation based on the equal life group procedure follow. The detailed calculations are set forth in the Results of Study section of the report.

Equal Life Group Procedure

In the equal life group procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the composite remaining life for the surviving original cost of that vintage. The composite remaining life is derived by compositing the individual equal life group remaining lives in accordance with the following equation:

$$\text{Composite Remaining Life} = \frac{\sum \left(\frac{\text{Book Cost}}{\text{Life}} \times \text{Remaining Life} \right)}{\sum \frac{\text{Book Cost}}{\text{Life}}}.$$

The book costs and lives of the several equal life groups which are summed in the foregoing equation are defined by the estimated survivor curve.

Inasmuch as book cost divided by life equals the whole life annual accrual, the foregoing equation reduces to the following form:

$$\text{Composite Remaining Life} = \frac{\sum \text{Whole Life Future Accruals}}{\sum \text{Whole Life Annual Accruals}}$$

or

$$\text{Composite Remaining Life} = \frac{\sum \text{Book Cost} - \text{Calc. Reserve}}{\sum \text{Whole Life Annual Accrual}}.$$

The annual accrual rate for each account is equal to the sum of the remaining life annual accruals for all vintages divided by the account's total original cost. The account's "composite remaining life" is calculated by dividing the sum of the future book accruals for all vintages by the sum of the remaining life annual accruals for all vintages.

The calculated accrued depreciation in the equal life group procedure also represents that portion of depreciable cost which will not be allocated to expense through future accruals. However, the calculation is based at the equal life group level rather than the vintage group level and does not require the use of averages. The equal life group accrued depreciation ratio is calculated as follows:

$$Ratio = 1 - \left(\frac{Remaining\ Life}{Service\ Life} \right)$$

Inasmuch as service life minus remaining life equals age, when averages are not employed, the foregoing equation reduces to:

$$Ratio = \left(\frac{Age}{Service\ Life} \right)$$

AMORTIZATION OF GENERAL PLANT ACCOUNTS

In order to use a more efficient and cost effective accounting process for equipment recorded in general plant Account 396; amounts capitalized in this account are amortized rather than depreciated. Amortization as defined in the Uniform System of Accounts is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized.

The primary reasons for the amortization of certain general plant accounts is that the effort required to unitize additions, periodically inventory equipment and determine amounts to be retired for equipment recorded in these accounts is disproportionate to the original cost of the equipment when compared to other wastewater plant accounts.

Accounting for such equipment using an amortization concept consists of capitalization of amounts to these accounts based on the same criteria as used previously under depreciation accounting, amortization of the asset over a fixed period, retirement of the equipment at the end of the amortization period and recognition of any net salvage related to disposition of equipment in these accounts as a gain or loss. For equipment in these accounts that was placed in service prior to implementation of amortization accounting, the net book value by vintage amortized over the remaining amortization period specified for each account and the original cost will be retired at the end of this period.

The amortization periods selected for each account or subaccount are based on a review of the existing depreciation rates for the accounts, typical service lives used for each type of equipment and a consideration of the period during which it is anticipated that most of the benefit of the equipment will be realized. The amortization periods are as follows:

<u>Account Number</u>	<u>Description</u>	<u>Amortization Period, Years</u>
396.7	Communication Equipment SCADA	10

NET SALVAGE

Experienced net salvage is incorporated in the results of the study as it was reported on the Company's books and records for the period January 1, 2017 through March 31, 2021 and estimated for the period April 1, 2021 through December 31, 2021. The calculation of the amortization is shown in Table 4 on page V-7. The amounts of

gross salvage and removal cost by account for each year are set forth in the section beginning on page VIII-2.

Net salvage is presented in this manner to determine the amount of net salvage to be amortized to the cost of service for ratemaking purposes. In order to be consistent with this manner of recognizing net salvage, no adjustments for net salvage were made to the annual depreciation calculated for the individual accounts.

PART V. RESULTS OF STUDY

PART V. RESULTS OF STUDY

DESCRIPTION OF SUMMARY TABULATIONS

Table 1 summarizes the results of the depreciation study which sets forth, by depreciable group, the estimated survivor curve, calculated annual accruals and book reserve related to net original cost and the annual amortization of net salvage. Table 2 presents the bringforward to March 31, 2022 of the book reserve as of March 31, 2021. Table 3 sets forth the calculation of estimated depreciation accruals for the twelve months ended March 31, 2022. Table 4 presents the amortization of experienced and estimated net salvage, by account, based on the five-year period, 2017-2021. The total amortization amount is incorporated in the total annual accrual in Table 1.

DESCRIPTION OF DETAILED TABULATIONS

Supporting statistical data for the estimates of average service lives and survivor curves, the annual depreciation calculations, and gross salvage and cost of removal for the years 2017-2021 are presented in three sections.

The section beginning on page VI-2 sets forth, for each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of the original life table plotted on the chart. A cumulative summary, by year installed, for utility plant and the supporting data for the original cost depreciation calculations are presented in the section beginning on page VII-3. The tabulations of experienced and estimated net salvage, by year and account for the five-year period 2017-2021, are presented in the section beginning on page VIII-2.

In the first section, the survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the type curve designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. In cases where only a segment of the estimated curve is used in the depreciation calculation, the numeral used for identification purposes is not a designation of the average life of the group. The titles of the charts indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which were plotted. The experience band indicates the range of years for which the retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The tables of the calculated annual depreciation related to original cost are presented in account sequence in the second section and indicate the estimated average survivor curves used in the calculations. The tables set forth, for each installation year, the original cost, calculated accrued depreciation, allocated book reserve, remaining life expectancy, and the calculated annual accrual.

Detailed tabulations setting forth the cost of removal, gross salvage and net salvage amounts, by account and year, are presented in the third section. The net salvage amounts, by account and year, are carried forward to Table 4, which presents the five-year amortization of net salvage.

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF MARCH 31, 2022

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF MARCH 31, 2022 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL AMOUNT (6)	CALCULATED RATE (7)=(6)/(3)	COMPOSITE REMAINING LIFE (8)=(5)/(6)
INTANGIBLE PLANT							
351.00 ORGANIZATION	NONDEPR.	324,739.75					
TOTAL INTANGIBLE PLANT		324,739.75					
NONDEPRECIABLE PLANT							
353.30 LAND AND LAND RIGHTS - PUMPING	NONDEPR.	57,797.65					
TOTAL NONDEPRECIABLE PLANT		57,797.65					
DEPRECIABLE PLANT							
354.00 STRUCTURES AND IMPROVEMENTS							
COLLECTION		1,961,298.58	426,822	1,534,477	45,547	2.32	33.7
PUMPING		450,011.53	201,039	248,973	7,590	1.69	32.8
TOTAL ACCOUNT 354		2,411,310.11	627,860	1,783,450	53,137		
355.00 POWER GENERATING EQUIPMENT							
TREATMENT AND DISPOSAL		121,308.59	63,389	57,920	5,088	4.19	11.4
TOTAL ACCOUNT 355		121,308.59	63,389	57,920	5,088		
360.00 COLLECTION MAINS - FORCE							
361.00 COLLECTION MAINS - GRAVITY		672,542.49	266,653	405,890	9,339	1.39	43.5
363.00 SERVICES		3,757,694.32	1,716,430	2,041,264	49,504	1.32	41.2
364.00 METERS		447,193.94	234,713	212,481	5,314	1.19	40.0
		27,539.03	3,341	24,198	1,351	4.91	17.9
371.30 PUMPING EQUIPMENT							
PUMPING		120,954.29	53,726	67,228	5,086	4.20	13.2
TOTAL ACCOUNT 371.3		120,954.29	53,726	67,228	5,086		
380.00 TREATMENT AND DISPOSAL EQUIPMENT							
396.70 COMMUNICATION EQUIPMENT - SCADA		189,035.80	(14,616)	203,652	8,355	4.42	24.4
		175,059.52	33,547	141,513	17,153	*	8.3
TOTAL DEPRECIABLE PLANT		7,922,638.09	2,985,043	4,937,596	154,327		
AMORTIZATION OF NET SALVAGE					225		
TOTAL WASTEWATER PLANT IN SERVICE		8,305,175.49	2,985,043	4,937,596	154,552		

* ACCRUALS CALCULATED FOR EACH ASSET BY THE COMPANY'S PROPERTY RECORD SYSTEM USING THE AMORTIZATION PERIOD SET FORTH IN COLUMN 2.



AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

TABLE 2. BRINGFORWARD TO MARCH 31, 2022 OF THE BOOK RESERVE AS OF MARCH 31, 2021

ACCOUNT (1)	BOOK RESERVE AS OF MARCH 31, 2021 (2)	+	DEPRECIATION ACCRUALS (3)	+	AMORTIZATION OF NET SALVAGE (4)	-	PROJECTED RETIREMENTS (5)	+	PROJECTED GROSS SALVAGE (6)	-	PROJECTED COST OF REMOVAL (7)	=	BOOK RESERVE AS OF MARCH 31, 2022 (8)
354.20	380,535		46,287										426,822
354.30	193,344		7,695										201,039
355.40	58,039		5,350										63,389
360.00	257,152		9,417				(84)						266,653
361.00	1,666,829		49,602										1,716,430
363.00	230,682		5,089		7		876				189		234,713
364.00	6,972		1,095				4,726						3,341
371.30	48,078		5,649								1,312		53,726
380.00	0				49		13,354						(14,616)
396.70	16,041		17,506										33,547
TOTAL	2,857,671		147,689		56		18,872		0		1,501		2,985,043



AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

TABLE 3. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED MARCH 31, 2022

ACCOUNT (1)	ORIGINAL COST AS OF MARCH 31, 2021 (2)	ORIGINAL COST AS OF MARCH 31, 2022 (3)	ANNUAL ACCRUAL RATE (4)	ANNUAL ACCRUAL AMOUNT (5)
UTILITY PLANT IN SERVICE				
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	1,961,298.58	1,961,298.58	2.36	46,287
354.30 STRUCTURES AND IMPROVEMENTS - PUMPING	450,011.53	450,011.53	1.71	7,695
355.40 POWER GENERATING EQUIPMENT - TREATMENT AND DISPOSAL	121,308.59	121,308.59	4.41	5,350
360.00 COLLECTION MAINS - FORCE	672,708.42	672,542.49	1.40	9,417
361.00 COLLECTION MAINS - GRAVITY	3,757,694.32	3,757,694.32	1.32	49,602
363.00 SERVICES	422,736.92	447,193.94	1.17	5,089
364.00 METERS	20,924.15	27,539.03	4.52	1,095
371.30 PUMPING EQUIPMENT - PUMPING	120,954.29	120,954.29	4.67	5,649
380.00 TREATMENT AND DISPOSAL EQUIPMENT	0.00	189,035.80	0.00	0
396.70 COMMUNICATION EQUIPMENT - SCADA	175,059.52	175,059.52	10.00 *	17,506
TOTAL PLANT IN SERVICE	7,702,696.32	7,922,638.09		147,689

* ACCRUAL RATE BASED ON AMORTIZATION PERIOD

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

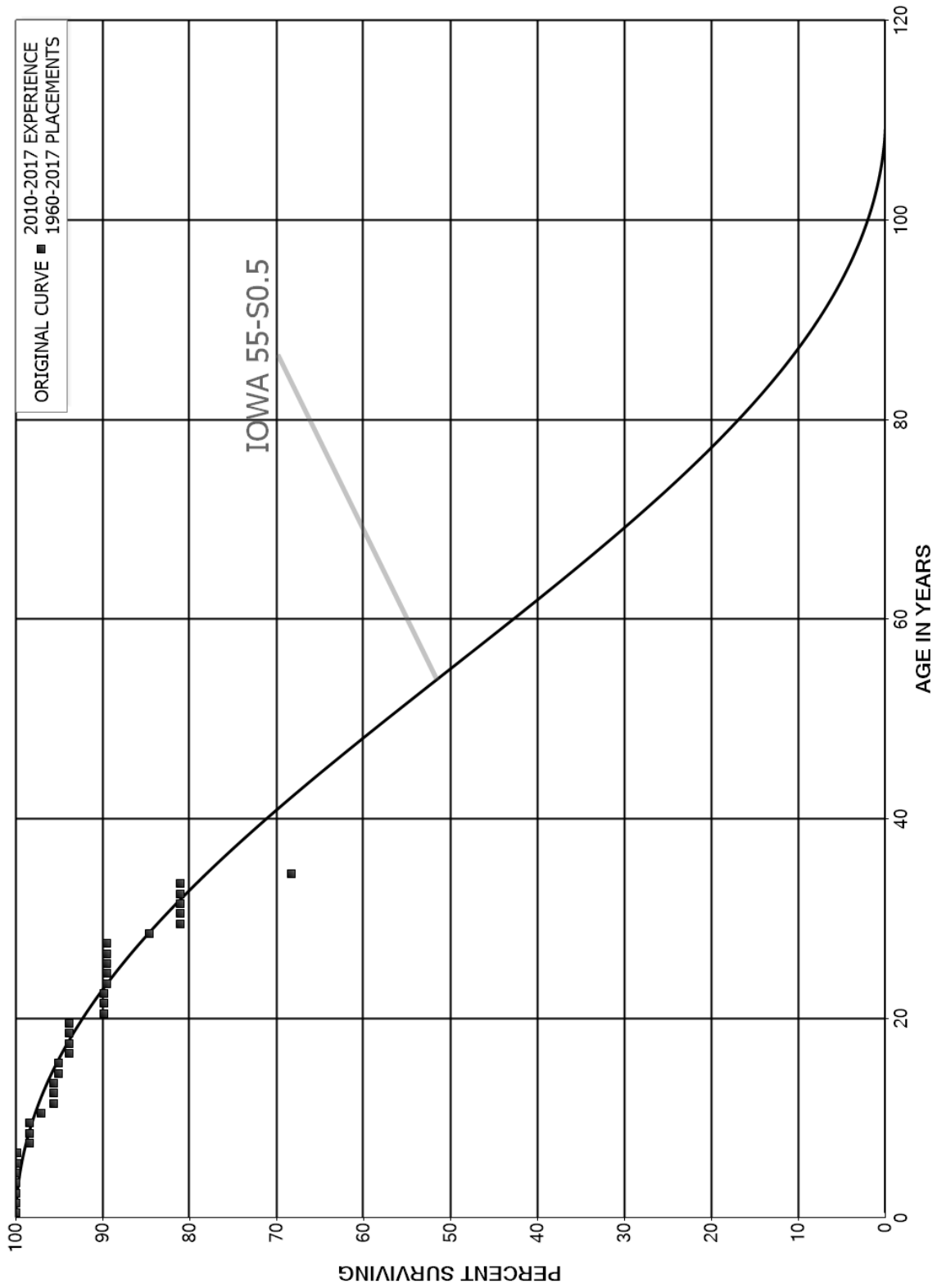
TABLE 4. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT (1)	2017			2018			2019			2020			2021			NET SALVAGE (12)*	SALVAGE ACCURAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	+	GROSS SALVAGE (4)	COST OF REMOVAL (5)	+	GROSS SALVAGE (6)	COST OF REMOVAL (7)	+	GROSS SALVAGE (8)	COST OF REMOVAL (9)	+	GROSS SALVAGE (10)	COST OF REMOVAL (11)	=		
363.00																(142.06)	(28)
380.00																(983.80)	(197)
TOTAL	-	-		-	-		-	-		-	-		-	1,125.86		(1,125.86)	(225)

* COLUMN (12) EQUALS THE SUMMATION OF COLUMNS (2) THROUGH (11).

PART VI. SERVICE LIFE STATISTICS

AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNT 354.2 STRUCTURES AND IMPROVEMENTS - COLLECTION
 ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 354.2 STRUCTURES AND IMPROVEMENTS - COLLECTION

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,257,381		0.0000	1.0000	100.00
0.5	2,098,467		0.0000	1.0000	100.00
1.5	1,878,564		0.0000	1.0000	100.00
2.5	1,878,564		0.0000	1.0000	100.00
3.5	3,297,881		0.0000	1.0000	100.00
4.5	3,313,109	5,669	0.0017	0.9983	100.00
5.5	3,307,440		0.0000	1.0000	99.83
6.5	3,293,581	45,724	0.0139	0.9861	99.83
7.5	2,386,087		0.0000	1.0000	98.44
8.5	2,456,269		0.0000	1.0000	98.44
9.5	2,617,044	36,966	0.0141	0.9859	98.44
10.5	1,202,343	18,469	0.0154	0.9846	97.05
11.5	1,247,585		0.0000	1.0000	95.56
12.5	1,267,560		0.0000	1.0000	95.56
13.5	1,267,560	6,016	0.0047	0.9953	95.56
14.5	1,306,451	536	0.0004	0.9996	95.11
15.5	1,293,169	16,982	0.0131	0.9869	95.07
16.5	301,494		0.0000	1.0000	93.82
17.5	171,166		0.0000	1.0000	93.82
18.5	170,707		0.0000	1.0000	93.82
19.5	106,996	4,502	0.0421	0.9579	93.82
20.5	75,352		0.0000	1.0000	89.87
21.5	175,864		0.0000	1.0000	89.87
22.5	130,958	517	0.0039	0.9961	89.87
23.5	130,441		0.0000	1.0000	89.52
24.5	130,441		0.0000	1.0000	89.52
25.5	99,995		0.0000	1.0000	89.52
26.5	112,249		0.0000	1.0000	89.52
27.5	112,249	6,192	0.0552	0.9448	89.52
28.5	106,058	4,413	0.0416	0.9584	84.58
29.5	12,254		0.0000	1.0000	81.06
30.5	12,254		0.0000	1.0000	81.06
31.5	12,254		0.0000	1.0000	81.06
32.5	12,254		0.0000	1.0000	81.06
33.5	12,254	1,937	0.1581	0.8419	81.06
34.5					68.25
35.5					
36.5					
37.5					
38.5					

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 354.2 STRUCTURES AND IMPROVEMENTS - COLLECTION

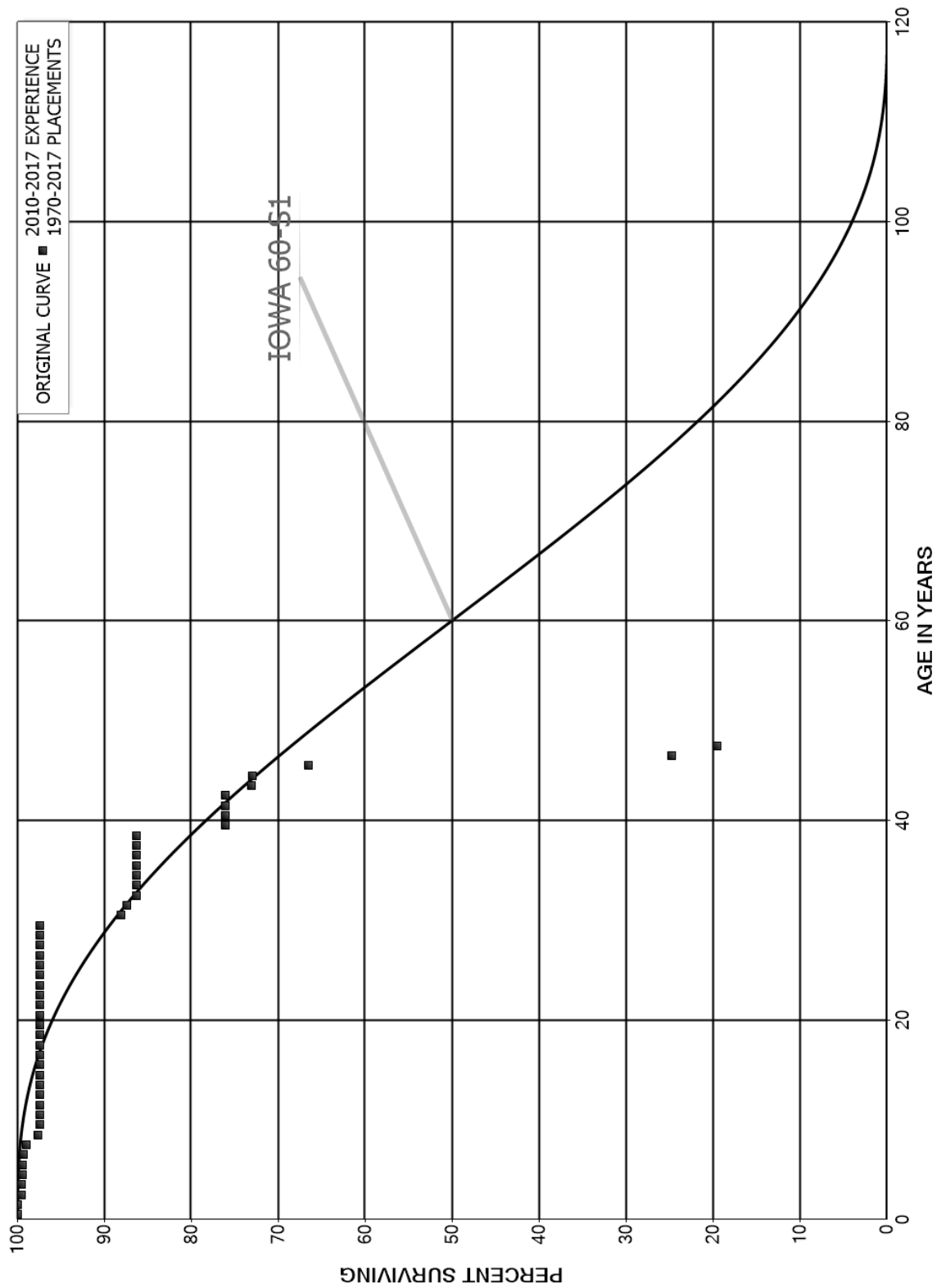
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5					
41.5					
42.5					
43.5					
44.5					
45.5					
46.5					
47.5					
48.5					
49.5	9,083		0.0000		
50.5	9,083		0.0000		
51.5	9,083		0.0000		
52.5	9,083		0.0000		
53.5	9,083	880	0.0969		
54.5	8,203	2,151	0.2623		
55.5	6,051		0.0000		
56.5	6,051	1,192	0.1970		
57.5					

AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNT 354.3 STRUCTURES AND IMPROVEMENTS - PUMPING
 ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 354.3 STRUCTURES AND IMPROVEMENTS - PUMPING

ORIGINAL LIFE TABLE

PLACEMENT BAND 1970-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,946,035		0.0000	1.0000	100.00
0.5	1,798,169	812	0.0005	0.9995	100.00
1.5	1,881,083	8,566	0.0046	0.9954	99.95
2.5	2,256,892		0.0000	1.0000	99.50
3.5	2,685,113	2,709	0.0010	0.9990	99.50
4.5	1,816,131		0.0000	1.0000	99.40
5.5	2,118,481	1,768	0.0008	0.9992	99.40
6.5	2,161,928	6,716	0.0031	0.9969	99.32
7.5	2,144,545	29,171	0.0136	0.9864	99.01
8.5	1,532,146	4,094	0.0027	0.9973	97.66
9.5	1,391,007		0.0000	1.0000	97.40
10.5	881,845		0.0000	1.0000	97.40
11.5	557,791		0.0000	1.0000	97.40
12.5	528,989		0.0000	1.0000	97.40
13.5	214,927		0.0000	1.0000	97.40
14.5	38,152		0.0000	1.0000	97.40
15.5	38,152		0.0000	1.0000	97.40
16.5	38,152		0.0000	1.0000	97.40
17.5	38,152		0.0000	1.0000	97.40
18.5	38,152		0.0000	1.0000	97.40
19.5	42,388		0.0000	1.0000	97.40
20.5	42,388		0.0000	1.0000	97.40
21.5	42,388		0.0000	1.0000	97.40
22.5	11,201		0.0000	1.0000	97.40
23.5	11,201		0.0000	1.0000	97.40
24.5	29,801		0.0000	1.0000	97.40
25.5	34,264		0.0000	1.0000	97.40
26.5	102,646		0.0000	1.0000	97.40
27.5	107,815		0.0000	1.0000	97.40
28.5	118,814		0.0000	1.0000	97.40
29.5	118,814	11,431	0.0962	0.9038	97.40
30.5	107,383	811	0.0075	0.9925	88.03
31.5	192,940	2,409	0.0125	0.9875	87.37
32.5	211,931		0.0000	1.0000	86.27
33.5	207,468		0.0000	1.0000	86.27
34.5	161,528		0.0000	1.0000	86.27
35.5	145,158		0.0000	1.0000	86.27
36.5	53,415		0.0000	1.0000	86.27
37.5	16,911		0.0000	1.0000	86.27
38.5	16,911	2,002	0.1184	0.8816	86.27

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 354.3 STRUCTURES AND IMPROVEMENTS - PUMPING

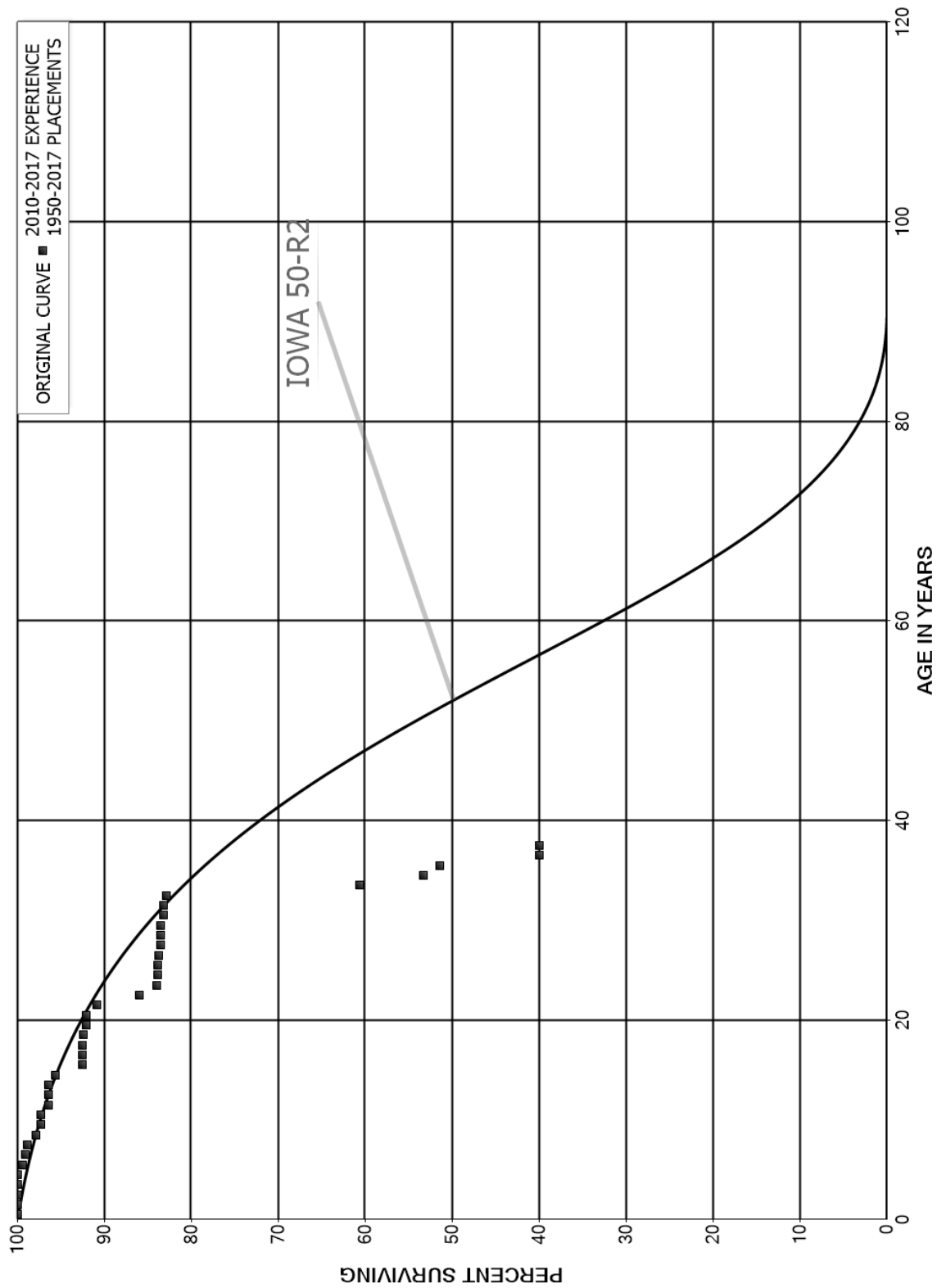
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1970-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	84,816		0.0000	1.0000	76.06
40.5	124,012		0.0000	1.0000	76.06
41.5	124,012		0.0000	1.0000	76.06
42.5	118,224	4,624	0.0391	0.9609	76.06
43.5	113,599	225	0.0020	0.9980	73.08
44.5	45,342	4,015	0.0886	0.9114	72.94
45.5	3,892	2,443	0.6275	0.3725	66.48
46.5	1,450	305	0.2104	0.7896	24.76
47.5					19.55

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS
ACCOUNT 354.4 STRUCTURES AND IMPROVEMENTS - TREATMENT AND DISPOSAL
ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 354.4 STRUCTURES AND IMPROVEMENTS - TREATMENT AND DISPOSAL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1950-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,578,187		0.0000	1.0000	100.00
0.5	6,199,355		0.0000	1.0000	100.00
1.5	5,855,261		0.0000	1.0000	100.00
2.5	5,541,007	1,050	0.0002	0.9998	100.00
3.5	6,139,511	3,928	0.0006	0.9994	99.98
4.5	6,246,905	33,379	0.0053	0.9947	99.92
5.5	6,086,693	18,604	0.0031	0.9969	99.38
6.5	5,379,490	11,225	0.0021	0.9979	99.08
7.5	9,357,452	98,278	0.0105	0.9895	98.87
8.5	6,808,266	36,315	0.0053	0.9947	97.83
9.5	6,770,210	2,864	0.0004	0.9996	97.31
10.5	6,231,635	58,111	0.0093	0.9907	97.27
11.5	5,478,941	371	0.0001	0.9999	96.36
12.5	4,984,366		0.0000	1.0000	96.36
13.5	4,948,804	37,221	0.0075	0.9925	96.36
14.5	4,139,342	133,937	0.0324	0.9676	95.63
15.5	849,694		0.0000	1.0000	92.54
16.5	538,370		0.0000	1.0000	92.54
17.5	515,020	634	0.0012	0.9988	92.54
18.5	462,361	1,597	0.0035	0.9965	92.42
19.5	1,109,863		0.0000	1.0000	92.11
20.5	1,201,958	16,374	0.0136	0.9864	92.11
21.5	1,420,538	77,073	0.0543	0.9457	90.85
22.5	2,280,284	52,790	0.0232	0.9768	85.92
23.5	1,896,916	1,098	0.0006	0.9994	83.93
24.5	2,110,119	856	0.0004	0.9996	83.88
25.5	1,958,767	2,783	0.0014	0.9986	83.85
26.5	2,097,701	4,448	0.0021	0.9979	83.73
27.5	2,106,672		0.0000	1.0000	83.55
28.5	2,051,424		0.0000	1.0000	83.55
29.5	2,564,769	10,032	0.0039	0.9961	83.55
30.5	2,419,157	1,834	0.0008	0.9992	83.23
31.5	298,968	1,105	0.0037	0.9963	83.16
32.5	259,357	69,751	0.2689	0.7311	82.86
33.5	189,606	22,856	0.1205	0.8795	60.57
34.5	111,622	3,894	0.0349	0.9651	53.27
35.5	107,728	24,054	0.2233	0.7767	51.41
36.5	46,827		0.0000	1.0000	39.93
37.5					39.93
38.5					

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 354.4 STRUCTURES AND IMPROVEMENTS - TREATMENT AND DISPOSAL

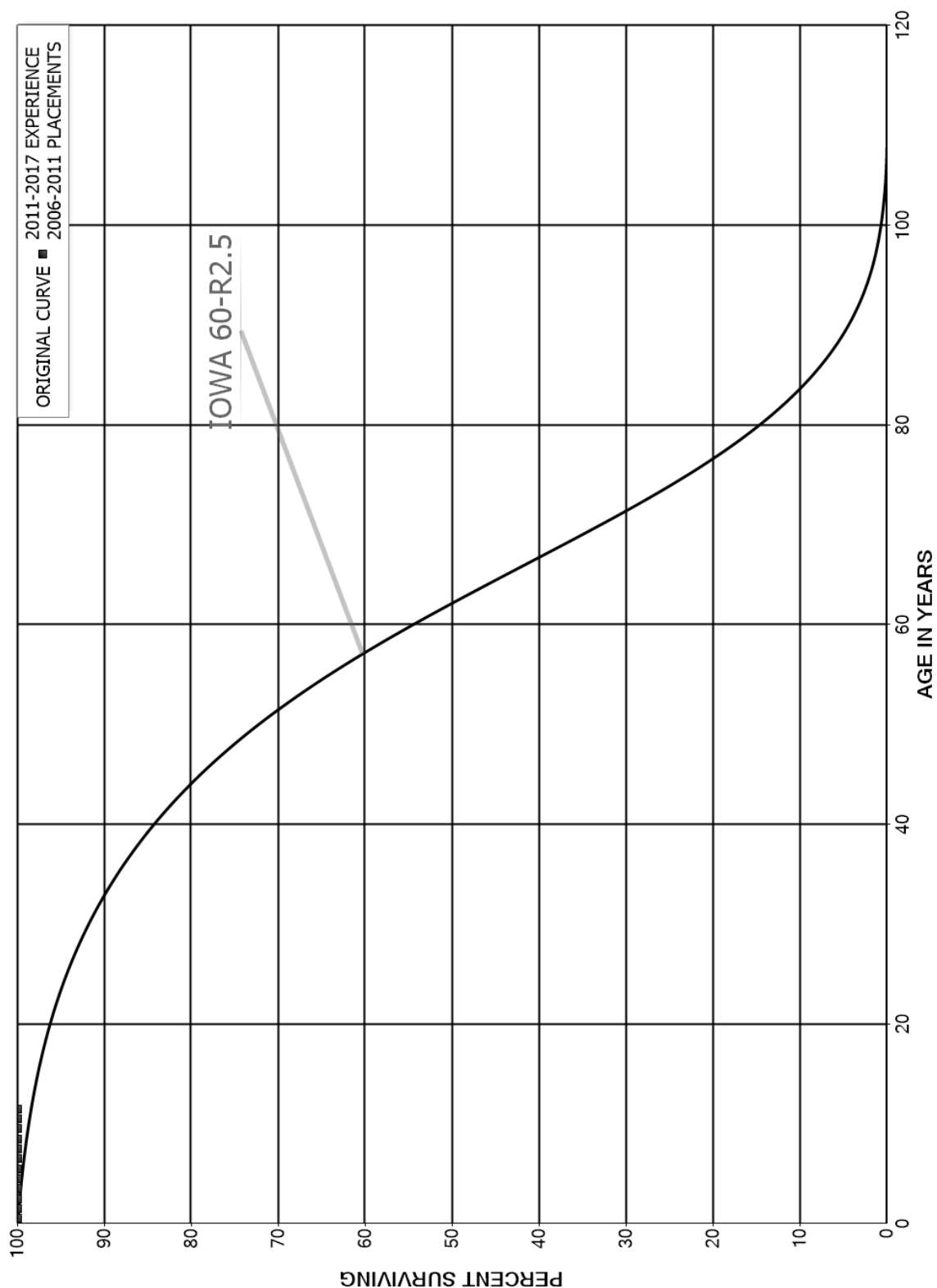
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1950-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	26,820		0.0000		
40.5	462,945		0.0000		
41.5	462,945	1,160	0.0025		
42.5	461,785	6,332	0.0137		
43.5	455,453	9,139	0.0201		
44.5	419,494	461	0.0011		
45.5	15,914		0.0000		
46.5	15,914	12,150	0.7635		
47.5					
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5					
59.5	420,422		0.0000		
60.5	420,422	3,111	0.0074		
61.5	417,311		0.0000		
62.5	417,311		0.0000		
63.5	417,311		0.0000		
64.5	417,311		0.0000		
65.5	417,311		0.0000		
66.5	417,311	44,392	0.1064		
67.5					

AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNT 354.5 STRUCTURES AND IMPROVEMENTS - RECLAIMED WATER TREATMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 354.5 STRUCTURES AND IMPROVEMENTS - RECLAIMED WATER TREATMENT

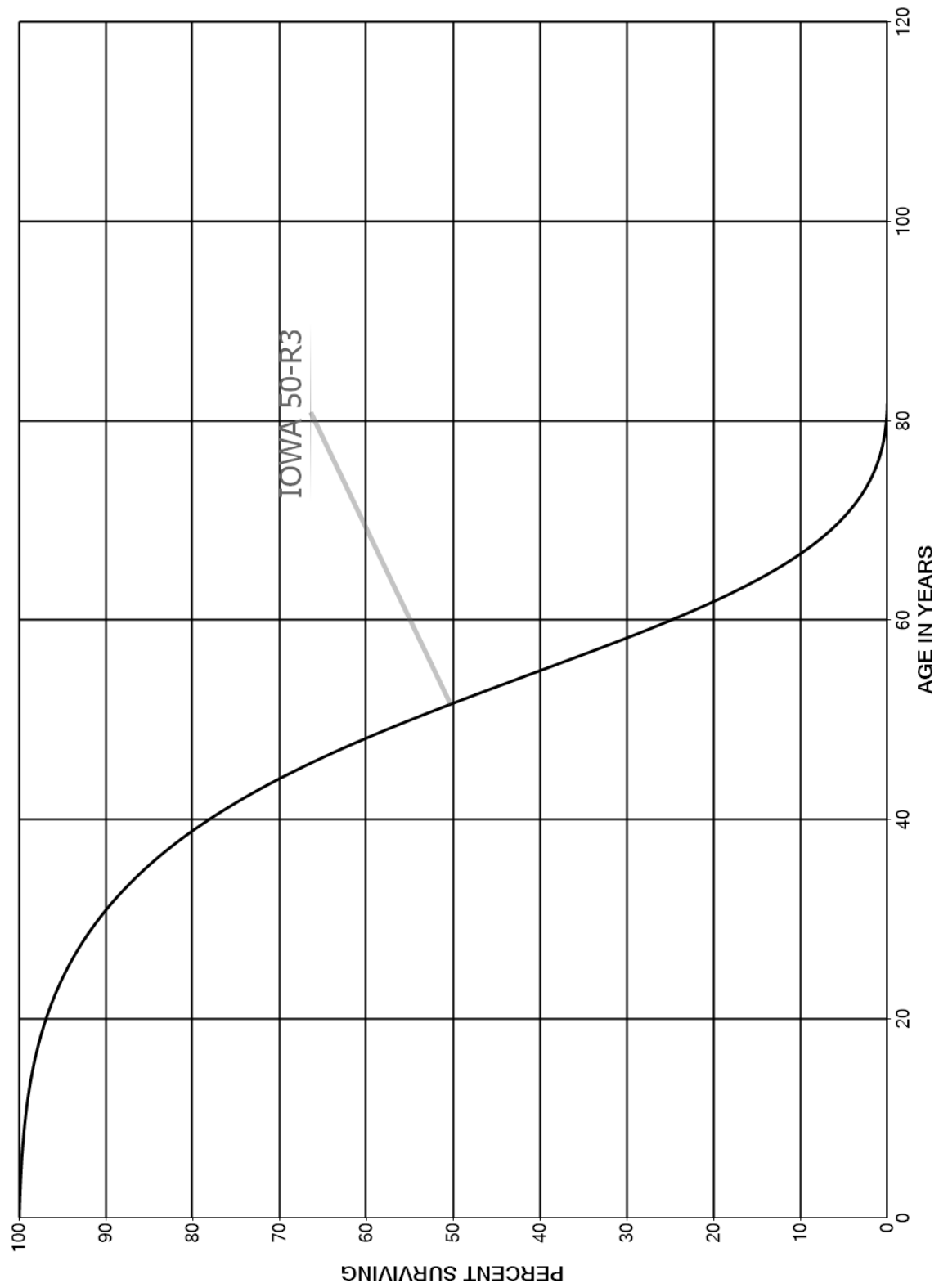
ORIGINAL LIFE TABLE

PLACEMENT BAND 2006-2011

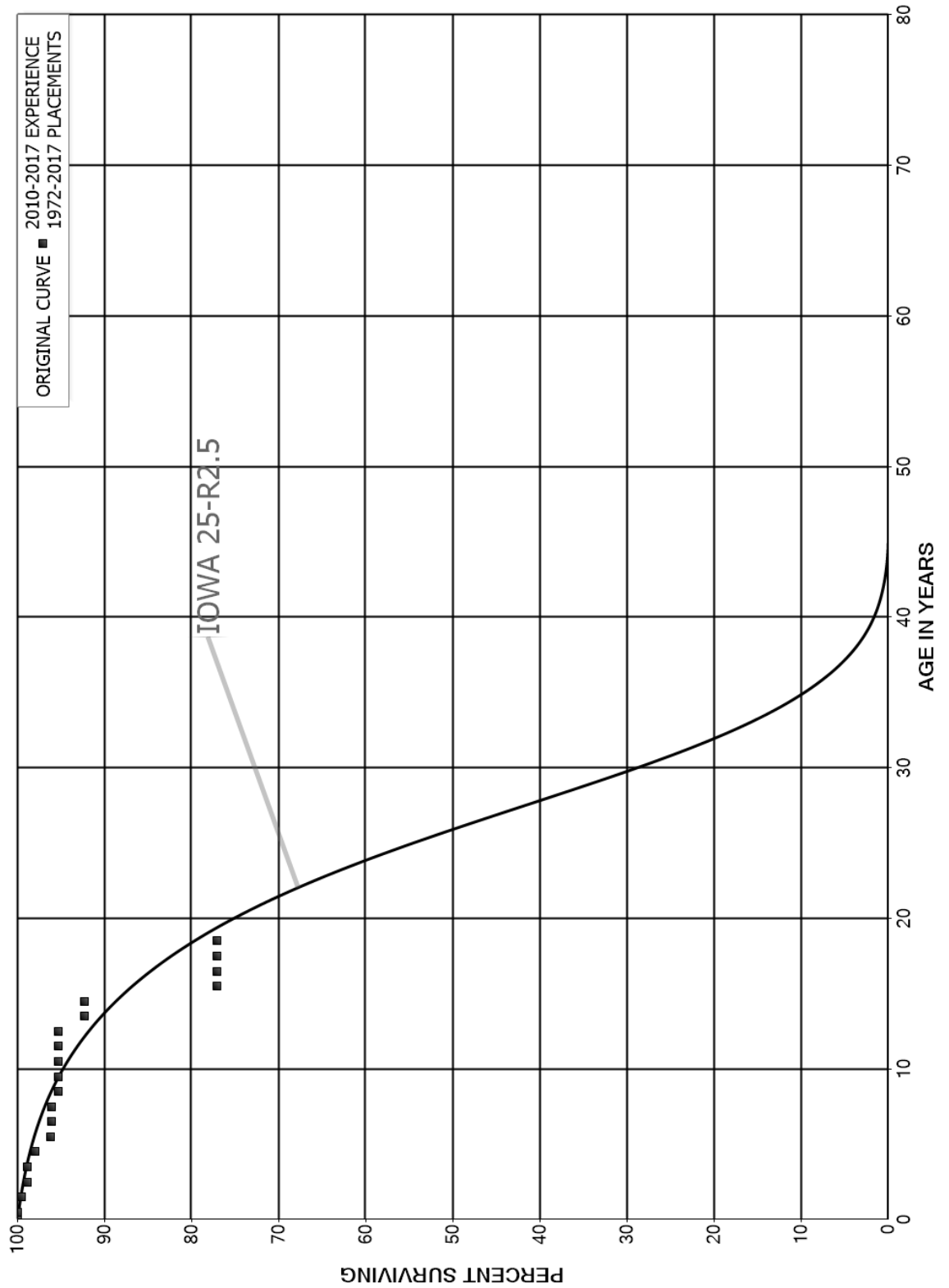
EXPERIENCE BAND 2011-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	627		0.0000	1.0000	100.00
0.5	627		0.0000	1.0000	100.00
1.5	627		0.0000	1.0000	100.00
2.5	2,887		0.0000	1.0000	100.00
3.5	7,931		0.0000	1.0000	100.00
4.5	36,713		0.0000	1.0000	100.00
5.5	36,713		0.0000	1.0000	100.00
6.5	36,086		0.0000	1.0000	100.00
7.5	36,086		0.0000	1.0000	100.00
8.5	36,086		0.0000	1.0000	100.00
9.5	33,826		0.0000	1.0000	100.00
10.5	28,782		0.0000	1.0000	100.00
11.5					100.00

AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNT 354.7 STRUCTURES AND IMPROVEMENTS - GENERAL
 SMOOTH SURVIVOR CURVE



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS
ACCOUNTS 355.2 THROUGH 355.4 POWER GENERATING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNTS 355.2 THROUGH 355.4 POWER GENERATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1972-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	390,273		0.0000	1.0000	100.00
0.5	416,698	1,869	0.0045	0.9955	100.00
1.5	543,479	3,867	0.0071	0.9929	99.55
2.5	494,299	0	0.0000	1.0000	98.84
3.5	534,998	4,826	0.0090	0.9910	98.84
4.5	557,098	10,166	0.0182	0.9818	97.95
5.5	543,510	543	0.0010	0.9990	96.16
6.5	476,710		0.0000	1.0000	96.07
7.5	407,872	3,410	0.0084	0.9916	96.07
8.5	398,951		0.0000	1.0000	95.26
9.5	148,398		0.0000	1.0000	95.26
10.5	141,345		0.0000	1.0000	95.26
11.5	101,287		0.0000	1.0000	95.26
12.5	101,287	3,214	0.0317	0.9683	95.26
13.5	98,074		0.0000	1.0000	92.24
14.5	98,007	16,131	0.1646	0.8354	92.24
15.5	128,165		0.0000	1.0000	77.06
16.5	128,165		0.0000	1.0000	77.06
17.5	120,000		0.0000	1.0000	77.06
18.5					77.06
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5					
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5					
37.5					
38.5					

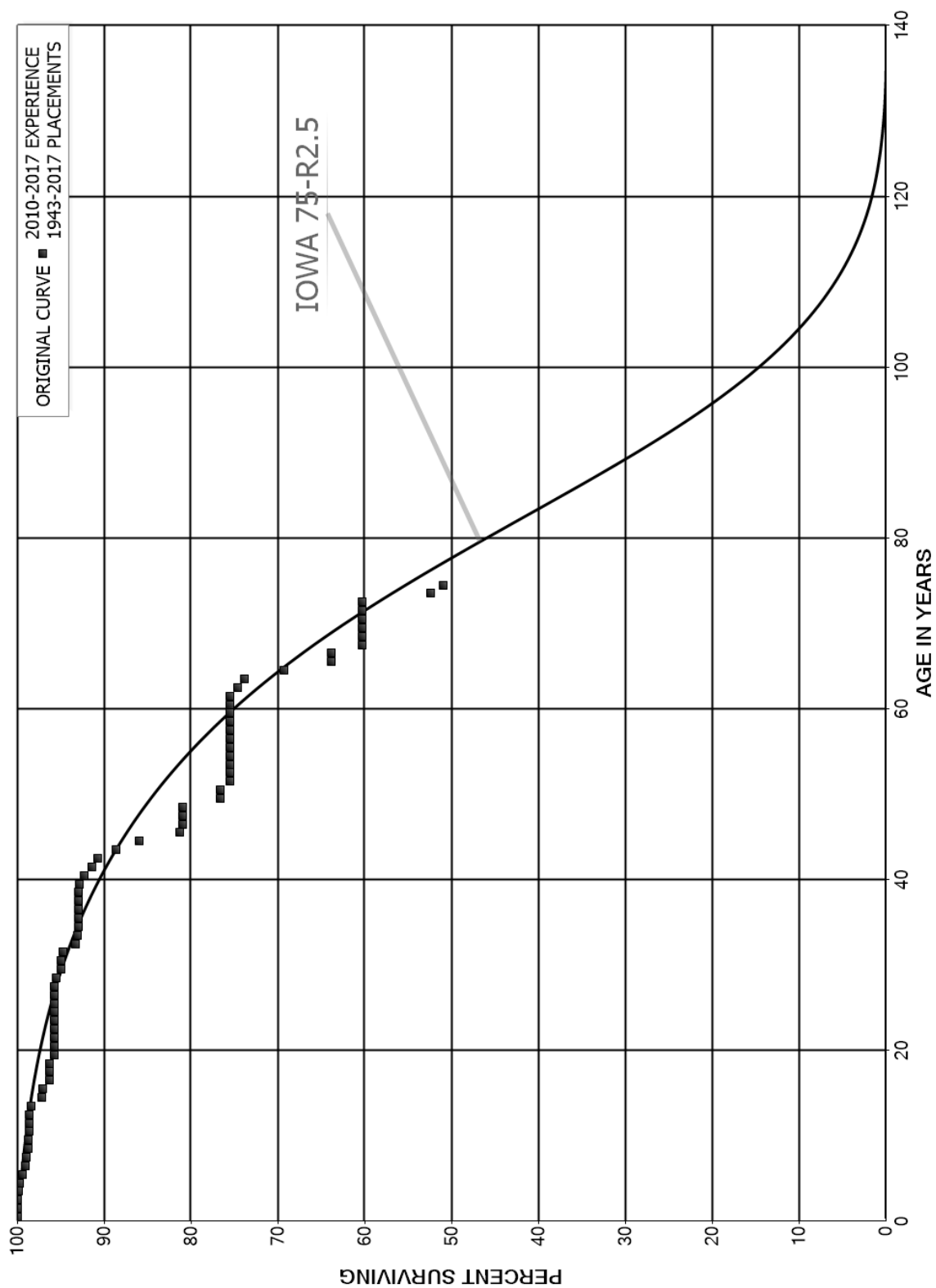
AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNTS 355.2 THROUGH 355.4 POWER GENERATING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1972-2017			EXPERIENCE BAND 2010-2017		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5	13,608		0.0000		
41.5	13,608		0.0000		
42.5	13,608		0.0000		
43.5	13,608		0.0000		
44.5	13,608		0.0000		
45.5					

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS
ACCOUNTS 360 AND 361 - COLLECTION MAINS - FORCE AND GRAVITY
ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNTS 360 AND 361 - COLLECTION MAINS - FORCE AND GRAVITY

ORIGINAL LIFE TABLE

PLACEMENT BAND 1943-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	15,996,160		0.0000	1.0000	100.00
0.5	9,817,637	0	0.0000	1.0000	100.00
1.5	10,379,970	501	0.0000	1.0000	100.00
2.5	7,903,524	17,007	0.0022	0.9978	100.00
3.5	7,120,182	602	0.0001	0.9999	99.78
4.5	6,525,126	21,411	0.0033	0.9967	99.77
5.5	6,757,519	28,312	0.0042	0.9958	99.44
6.5	6,907,416	5,271	0.0008	0.9992	99.03
7.5	11,563,424	26,078	0.0023	0.9977	98.95
8.5	12,073,642	2,036	0.0002	0.9998	98.73
9.5	10,959,708	4,776	0.0004	0.9996	98.71
10.5	12,883,334		0.0000	1.0000	98.67
11.5	13,512,472	10,916	0.0008	0.9992	98.67
12.5	7,852,014	14,897	0.0019	0.9981	98.59
13.5	4,355,890	54,378	0.0125	0.9875	98.40
14.5	5,101,734	6,826	0.0013	0.9987	97.17
15.5	5,089,997	38,849	0.0076	0.9924	97.04
16.5	5,157,762		0.0000	1.0000	96.30
17.5	4,017,926		0.0000	1.0000	96.30
18.5	4,044,470	22,047	0.0055	0.9945	96.30
19.5	2,723,063		0.0000	1.0000	95.78
20.5	2,615,272		0.0000	1.0000	95.78
21.5	2,734,655		0.0000	1.0000	95.78
22.5	1,012,152		0.0000	1.0000	95.78
23.5	1,159,517		0.0000	1.0000	95.78
24.5	1,452,252		0.0000	1.0000	95.78
25.5	1,592,077		0.0000	1.0000	95.78
26.5	2,190,183		0.0000	1.0000	95.78
27.5	1,918,013	4,463	0.0023	0.9977	95.78
28.5	2,149,972	13,121	0.0061	0.9939	95.56
29.5	2,315,956		0.0000	1.0000	94.97
30.5	3,189,169	7,385	0.0023	0.9977	94.97
31.5	4,575,534	68,924	0.0151	0.9849	94.75
32.5	4,731,241	14,002	0.0030	0.9970	93.33
33.5	4,685,663	6,089	0.0013	0.9987	93.05
34.5	4,093,664		0.0000	1.0000	92.93
35.5	3,303,952		0.0000	1.0000	92.93
36.5	1,898,586		0.0000	1.0000	92.93
37.5	787,007		0.0000	1.0000	92.93
38.5	748,261	675	0.0009	0.9991	92.93

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNTS 360 AND 361 - COLLECTION MAINS - FORCE AND GRAVITY

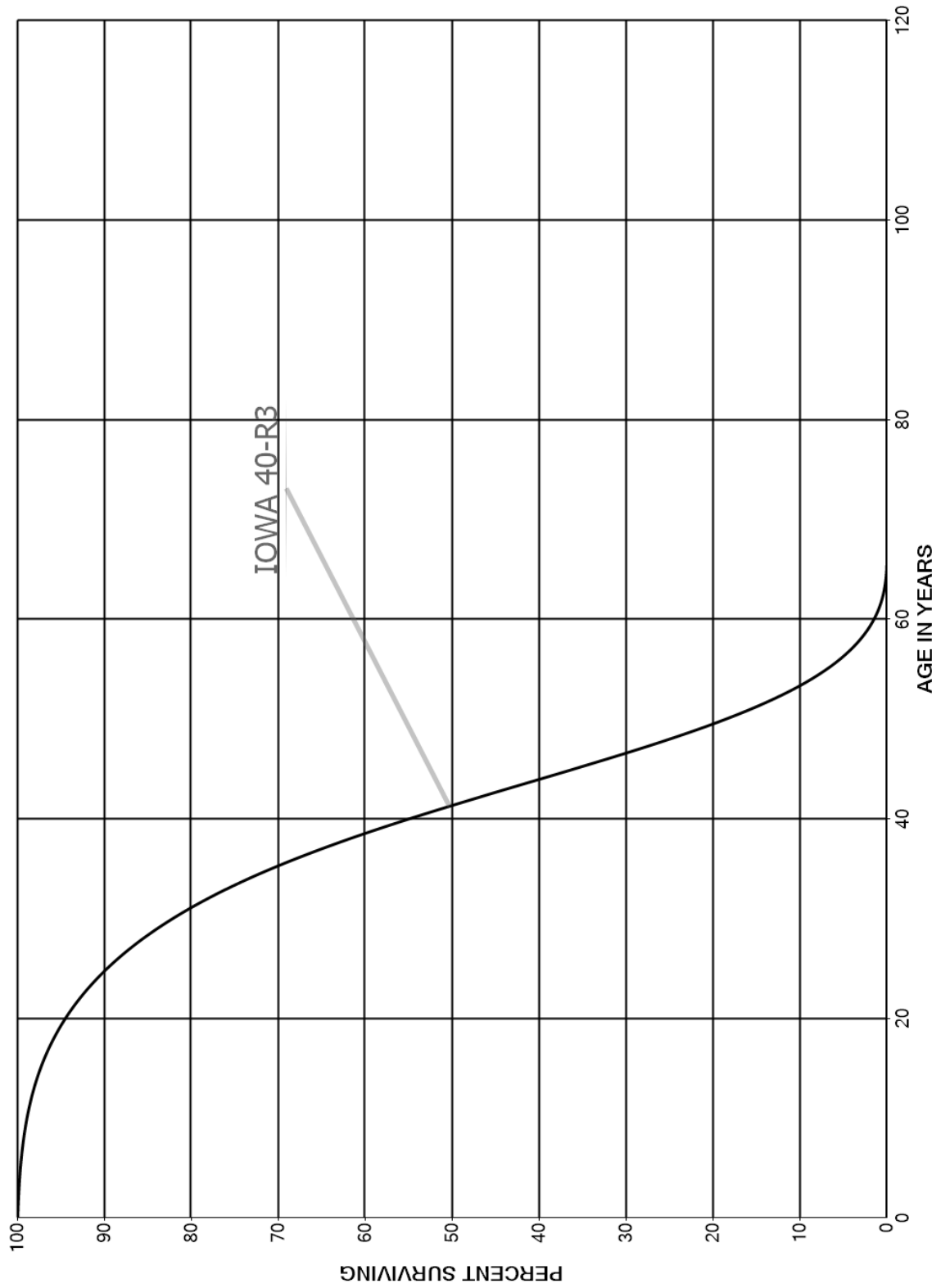
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1943-2017

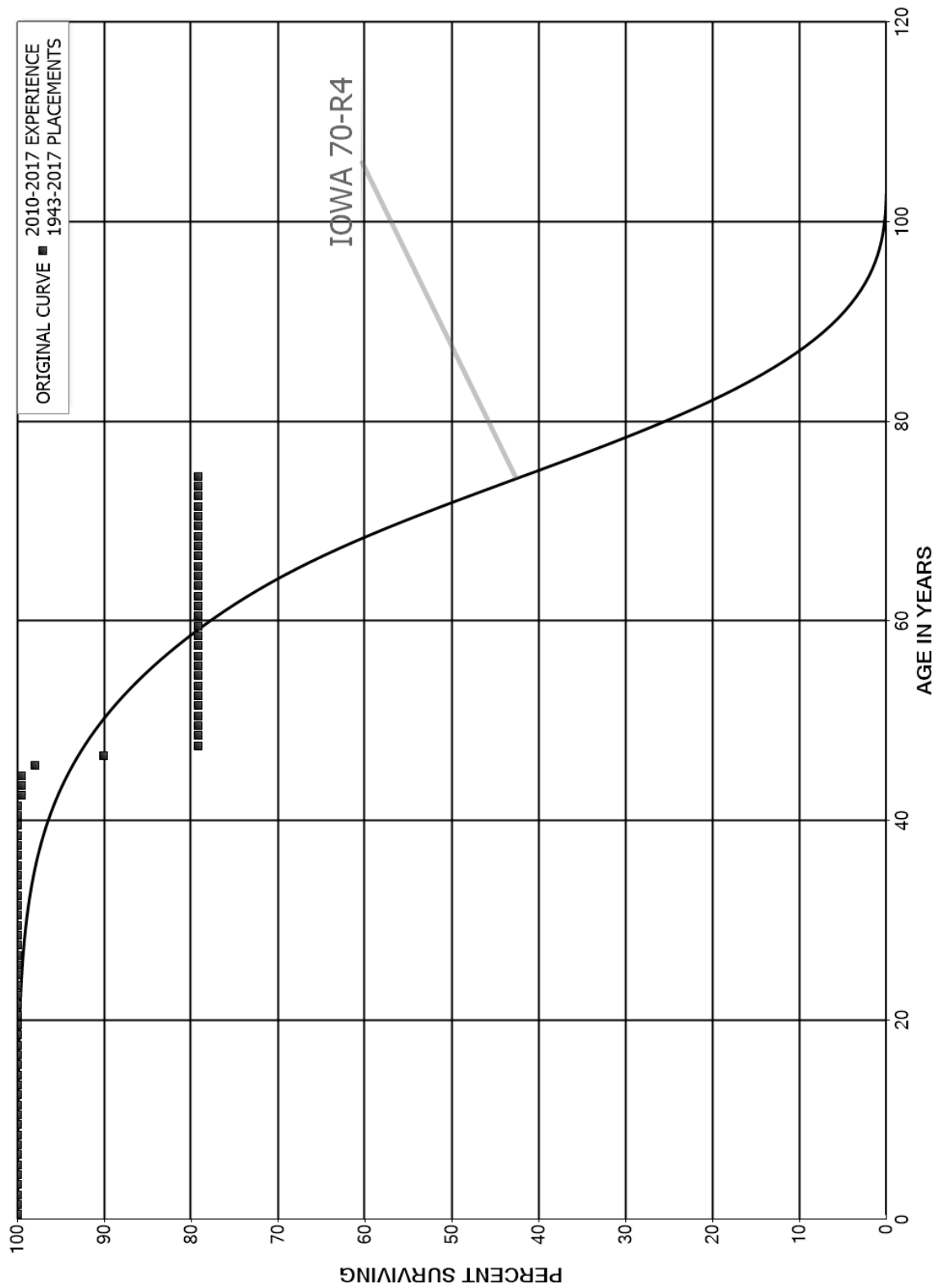
EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,327,693	8,451	0.0064	0.9936	92.84
40.5	2,188,537	20,857	0.0095	0.9905	92.25
41.5	2,301,907	15,115	0.0066	0.9934	91.37
42.5	2,191,376	52,787	0.0241	0.9759	90.77
43.5	2,133,054	62,534	0.0293	0.9707	88.59
44.5	1,453,359	79,155	0.0545	0.9455	85.99
45.5	449,770	1,695	0.0038	0.9962	81.31
46.5	173,512		0.0000	1.0000	81.00
47.5	108,439		0.0000	1.0000	81.00
48.5	108,439	5,909	0.0545	0.9455	81.00
49.5	122,967		0.0000	1.0000	76.59
50.5	133,941	1,870	0.0140	0.9860	76.59
51.5	207,546		0.0000	1.0000	75.52
52.5	50,943		0.0000	1.0000	75.52
53.5	50,943		0.0000	1.0000	75.52
54.5	63,623		0.0000	1.0000	75.52
55.5	44,091		0.0000	1.0000	75.52
56.5	59,997		0.0000	1.0000	75.52
57.5	23,654		0.0000	1.0000	75.52
58.5	12,681		0.0000	1.0000	75.52
59.5	600,366		0.0000	1.0000	75.52
60.5	600,366	12	0.0000	1.0000	75.52
61.5	642,094	8,105	0.0126	0.9874	75.52
62.5	579,569	5,613	0.0097	0.9903	74.56
63.5	573,956	35,569	0.0620	0.9380	73.84
64.5	538,387	41,982	0.0780	0.9220	69.26
65.5	496,404	493	0.0010	0.9990	63.86
66.5	536,053	29,911	0.0558	0.9442	63.80
67.5	40,141		0.0000	1.0000	60.24
68.5	40,141		0.0000	1.0000	60.24
69.5	40,141		0.0000	1.0000	60.24
70.5	40,141		0.0000	1.0000	60.24
71.5	58,091		0.0000	1.0000	60.24
72.5	40,141	5,234	0.1304	0.8696	60.24
73.5	34,907	932	0.0267	0.9733	52.39
74.5					50.99

AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNT 362 SPECIAL COLLECTING STRUCTURES
 SMOOTH SURVIVOR CURVE



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS
ACCOUNT 363 SERVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 363 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1943-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,511,339		0.0000	1.0000	100.00
0.5	1,322,032		0.0000	1.0000	100.00
1.5	1,258,144		0.0000	1.0000	100.00
2.5	1,064,617		0.0000	1.0000	100.00
3.5	1,016,113		0.0000	1.0000	100.00
4.5	989,078		0.0000	1.0000	100.00
5.5	1,100,135		0.0000	1.0000	100.00
6.5	1,102,716		0.0000	1.0000	100.00
7.5	3,362,564		0.0000	1.0000	100.00
8.5	3,625,685	775	0.0002	0.9998	100.00
9.5	3,552,572		0.0000	1.0000	99.98
10.5	3,859,193		0.0000	1.0000	99.98
11.5	3,844,684		0.0000	1.0000	99.98
12.5	1,370,315		0.0000	1.0000	99.98
13.5	1,056,916		0.0000	1.0000	99.98
14.5	1,066,882		0.0000	1.0000	99.98
15.5	1,067,717		0.0000	1.0000	99.98
16.5	779,784		0.0000	1.0000	99.98
17.5	681,287		0.0000	1.0000	99.98
18.5	406,255		0.0000	1.0000	99.98
19.5	254,947		0.0000	1.0000	99.98
20.5	127,825		0.0000	1.0000	99.98
21.5	133,448		0.0000	1.0000	99.98
22.5	79,549		0.0000	1.0000	99.98
23.5	146,334		0.0000	1.0000	99.98
24.5	169,875		0.0000	1.0000	99.98
25.5	296,931		0.0000	1.0000	99.98
26.5	284,248		0.0000	1.0000	99.98
27.5	472,422		0.0000	1.0000	99.98
28.5	1,065,631		0.0000	1.0000	99.98
29.5	1,374,998		0.0000	1.0000	99.98
30.5	1,375,420		0.0000	1.0000	99.98
31.5	1,410,267		0.0000	1.0000	99.98
32.5	1,364,838		0.0000	1.0000	99.98
33.5	950,870		0.0000	1.0000	99.98
34.5	871,429		0.0000	1.0000	99.98
35.5	836,245		0.0000	1.0000	99.98
36.5	805,933		0.0000	1.0000	99.98
37.5	694,345		0.0000	1.0000	99.98
38.5	681,103		0.0000	1.0000	99.98

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 363 SERVICES

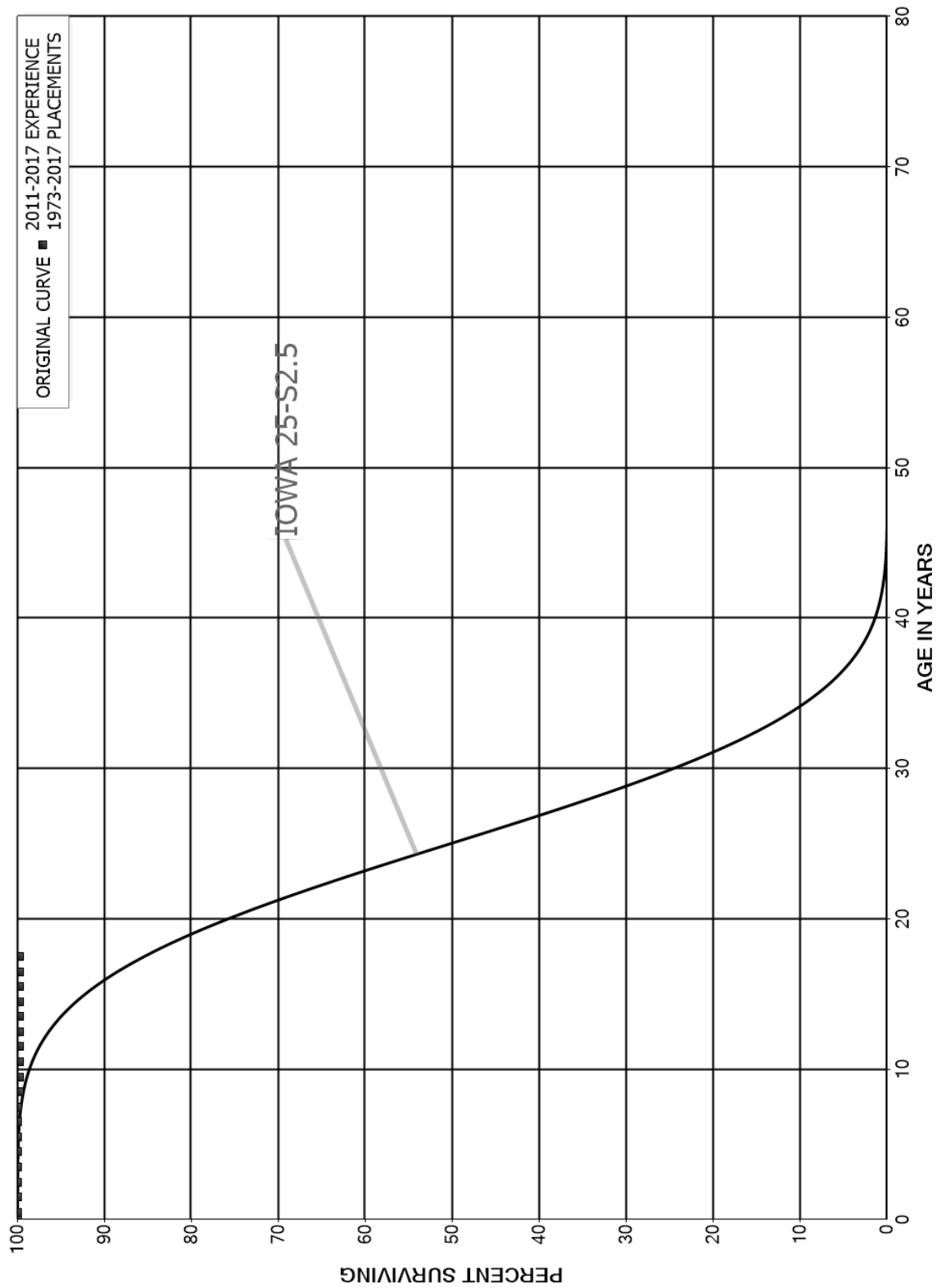
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1943-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	588,590		0.0000	1.0000	99.98
40.5	521,955		0.0000	1.0000	99.98
41.5	376,113	1,782	0.0047	0.9953	99.98
42.5	188,525		0.0000	1.0000	99.50
43.5	66,015		0.0000	1.0000	99.50
44.5	61,544	960	0.0156	0.9844	99.50
45.5	11,861	957	0.0807	0.9193	97.95
46.5	10,074	1,217	0.1208	0.8792	90.05
47.5	3,076		0.0000	1.0000	79.17
48.5	3,076		0.0000	1.0000	79.17
49.5	5,373		0.0000	1.0000	79.17
50.5	9,689		0.0000	1.0000	79.17
51.5	14,235		0.0000	1.0000	79.17
52.5	8,302		0.0000	1.0000	79.17
53.5	8,302		0.0000	1.0000	79.17
54.5	12,475		0.0000	1.0000	79.17
55.5	10,786		0.0000	1.0000	79.17
56.5	15,947		0.0000	1.0000	79.17
57.5	8,490		0.0000	1.0000	79.17
58.5	4,173		0.0000	1.0000	79.17
59.5	6,337		0.0000	1.0000	79.17
60.5	6,337		0.0000	1.0000	79.17
61.5	13,817		0.0000	1.0000	79.17
62.5	2,164		0.0000	1.0000	79.17
63.5	2,164		0.0000	1.0000	79.17
64.5	2,164		0.0000	1.0000	79.17
65.5	2,164		0.0000	1.0000	79.17
66.5	18,061		0.0000	1.0000	79.17
67.5	15,897		0.0000	1.0000	79.17
68.5	15,897		0.0000	1.0000	79.17
69.5	15,897		0.0000	1.0000	79.17
70.5	15,897		0.0000	1.0000	79.17
71.5	21,412		0.0000	1.0000	79.17
72.5	15,897		0.0000	1.0000	79.17
73.5	15,897		0.0000	1.0000	79.17
74.5					79.17

AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNT 364 METERS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 364 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1973-2017

EXPERIENCE BAND 2011-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	40,826		0.0000	1.0000	100.00
0.5	20,552		0.0000	1.0000	100.00
1.5	50,096		0.0000	1.0000	100.00
2.5	51,189		0.0000	1.0000	100.00
3.5	56,956		0.0000	1.0000	100.00
4.5	57,573		0.0000	1.0000	100.00
5.5	57,899		0.0000	1.0000	100.00
6.5	60,884		0.0000	1.0000	100.00
7.5	114,648	326	0.0028	0.9972	100.00
8.5	97,053		0.0000	1.0000	99.72
9.5	75,128		0.0000	1.0000	99.72
10.5	68,787		0.0000	1.0000	99.72
11.5	68,787		0.0000	1.0000	99.72
12.5	68,787		0.0000	1.0000	99.72
13.5	65,802		0.0000	1.0000	99.72
14.5	3,828		0.0000	1.0000	99.72
15.5	3,828		0.0000	1.0000	99.72
16.5	3,828		0.0000	1.0000	99.72
17.5					99.72
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5					
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5					
37.5	710		0.0000		
38.5	710		0.0000		

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 364 METERS

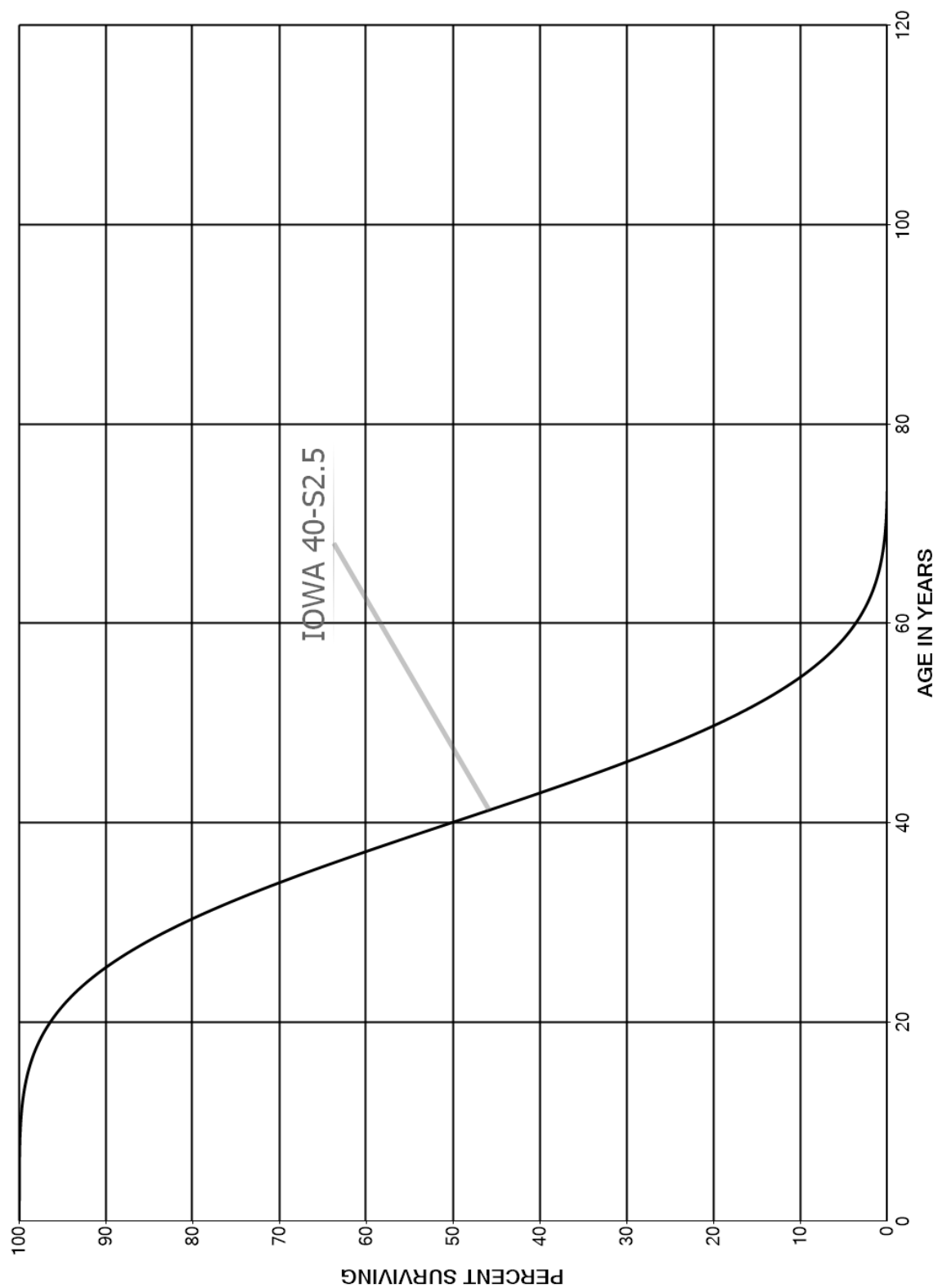
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1973-2017

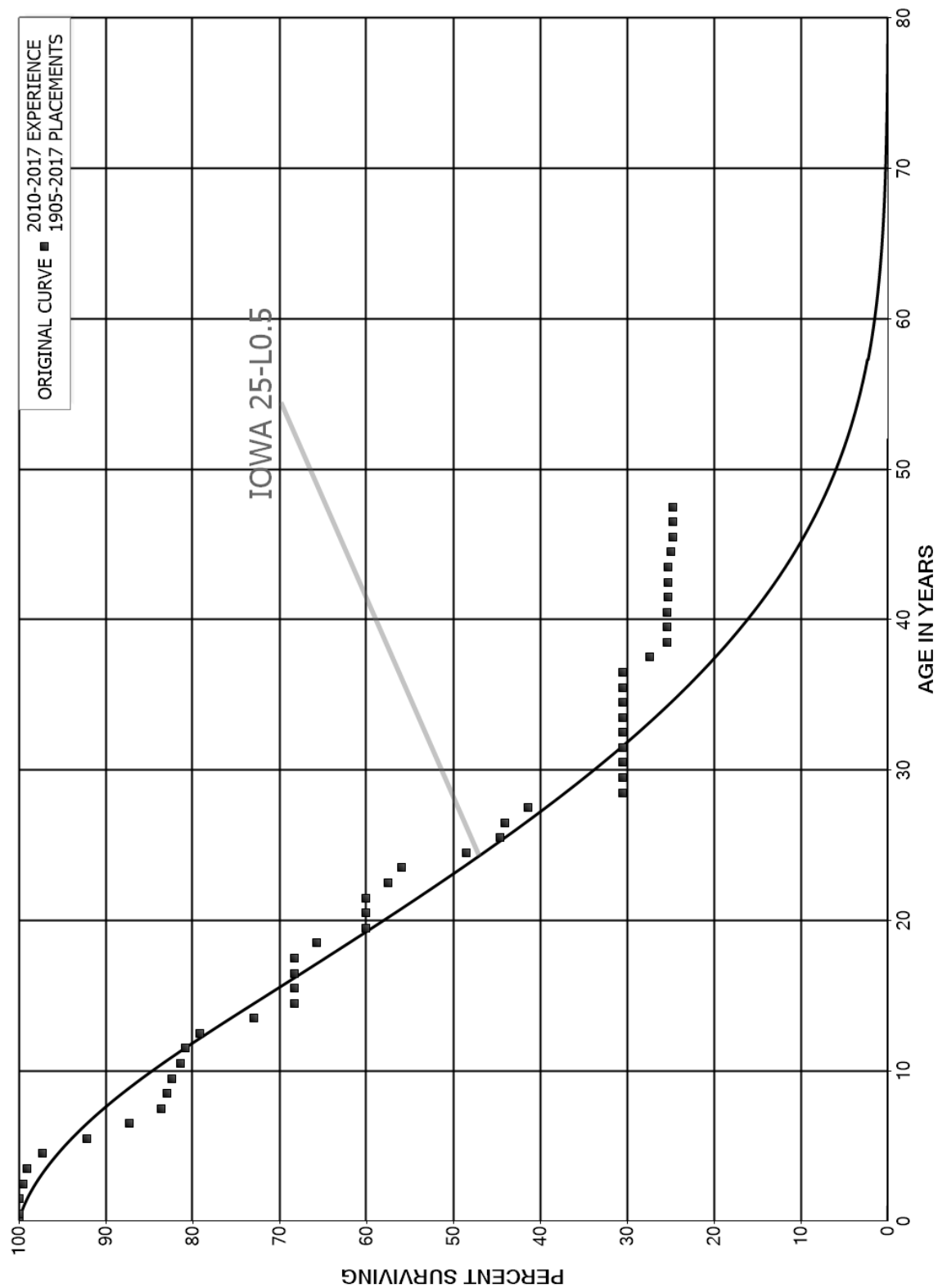
EXPERIENCE BAND 2011-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	710		0.0000		
40.5	710		0.0000		
41.5	710		0.0000		
42.5	710		0.0000		
43.5	710		0.0000		
44.5					

AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNT 370 RECEIVING WELLS
 SMOOTH SURVIVOR CURVE



AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNTS 371.3 AND 371.5 PUMPING EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNTS 371.3 AND 371.5 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1905-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,397,816		0.0000	1.0000	100.00
0.5	4,092,747	952	0.0002	0.9998	100.00
1.5	3,615,772	18,684	0.0052	0.9948	99.98
2.5	3,097,690	12,096	0.0039	0.9961	99.46
3.5	2,633,036	48,269	0.0183	0.9817	99.07
4.5	2,413,995	125,611	0.0520	0.9480	97.26
5.5	2,274,801	122,151	0.0537	0.9463	92.19
6.5	1,755,020	72,135	0.0411	0.9589	87.24
7.5	4,117,720	33,901	0.0082	0.9918	83.66
8.5	3,105,571	20,505	0.0066	0.9934	82.97
9.5	2,959,009	37,675	0.0127	0.9873	82.42
10.5	2,872,624	20,575	0.0072	0.9928	81.37
11.5	2,799,081	55,428	0.0198	0.9802	80.79
12.5	186,364	14,808	0.0795	0.9205	79.19
13.5	200,094	12,768	0.0638	0.9362	72.90
14.5	189,298		0.0000	1.0000	68.25
15.5	1,171,780		0.0000	1.0000	68.25
16.5	1,047,009		0.0000	1.0000	68.25
17.5	1,037,742	38,624	0.0372	0.9628	68.25
18.5	31,583	2,693	0.0853	0.9147	65.71
19.5	43,137		0.0000	1.0000	60.10
20.5	81,726		0.0000	1.0000	60.10
21.5	70,074	3,051	0.0435	0.9565	60.10
22.5	66,671	1,841	0.0276	0.9724	57.49
23.5	64,830	8,546	0.1318	0.8682	55.90
24.5	56,285	4,525	0.0804	0.9196	48.53
25.5	51,760	621	0.0120	0.9880	44.63
26.5	51,139	3,081	0.0602	0.9398	44.09
27.5	42,235	11,195	0.2651	0.7349	41.44
28.5	17,281		0.0000	1.0000	30.45
29.5	138,140		0.0000	1.0000	30.45
30.5	7,478		0.0000	1.0000	30.45
31.5	25,429		0.0000	1.0000	30.45
32.5	25,429		0.0000	1.0000	30.45
33.5	25,429		0.0000	1.0000	30.45
34.5	31,213		0.0000	1.0000	30.45
35.5	31,213		0.0000	1.0000	30.45
36.5	30,249	2,993	0.0990	0.9010	30.45
37.5	27,633	2,021	0.0731	0.9269	27.44
38.5	25,613		0.0000	1.0000	25.43

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNTS 371.3 AND 371.5 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	75,029		0.0000	1.0000	25.43
40.5	75,029	555	0.0074	0.9926	25.43
41.5	74,474		0.0000	1.0000	25.25
42.5	73,704		0.0000	1.0000	25.25
43.5	73,704	739	0.0100	0.9900	25.25
44.5	72,966	720	0.0099	0.9901	24.99
45.5	78,528		0.0000	1.0000	24.75
46.5	78,528		0.0000	1.0000	24.75
47.5					24.75
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5					
59.5					
60.5					
61.5					
62.5					
63.5					
64.5					
65.5					
66.5					
67.5					
68.5					
69.5					
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNTS 371.3 AND 371.5 PUMPING EQUIPMENT

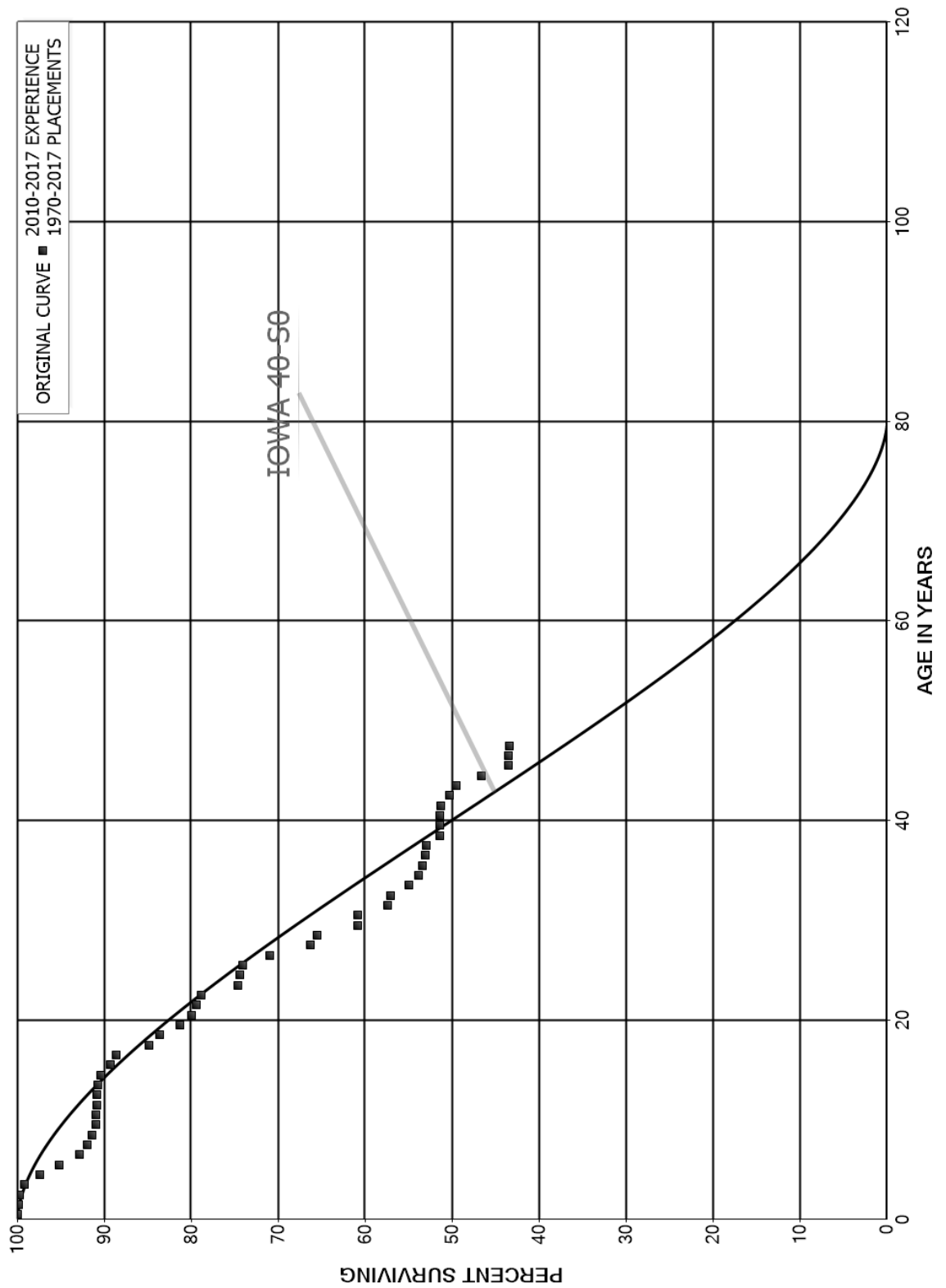
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5					
83.5					
84.5					
85.5					
86.5					
87.5					
88.5					
89.5					
90.5					
91.5					
92.5					
93.5					
94.5					
95.5					
96.5					
97.5					
98.5					
99.5					
100.5					
101.5					
102.5					
103.5					
104.5	209,621		0.0000		
105.5	209,621		0.0000		
106.5	209,621		0.0000		
107.5	209,621	171	0.0008		
108.5	209,449	611	0.0029		
109.5	208,838		0.0000		
110.5	208,838	358	0.0017		
111.5	208,480	488	0.0023		
112.5					

AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNT 380 TREATMENT AND DISPOSAL EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 380 TREATMENT AND DISPOSAL EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1970-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	13,621,639		0.0000	1.0000	100.00
0.5	8,927,926	13,388	0.0015	0.9985	100.00
1.5	5,461,305	7,760	0.0014	0.9986	99.85
2.5	2,738,060	13,642	0.0050	0.9950	99.71
3.5	2,308,322	43,518	0.0189	0.9811	99.21
4.5	2,077,670	47,140	0.0227	0.9773	97.34
5.5	1,863,779	44,228	0.0237	0.9763	95.13
6.5	1,364,357	12,858	0.0094	0.9906	92.87
7.5	3,936,063	27,676	0.0070	0.9930	92.00
8.5	3,594,706	14,803	0.0041	0.9959	91.35
9.5	5,387,317	651	0.0001	0.9999	90.98
10.5	5,313,389	8,168	0.0015	0.9985	90.97
11.5	5,251,372	537	0.0001	0.9999	90.83
12.5	4,182,224	5,815	0.0014	0.9986	90.82
13.5	4,173,673	15,874	0.0038	0.9962	90.69
14.5	1,420,554	16,236	0.0114	0.9886	90.35
15.5	416,396	3,225	0.0077	0.9923	89.31
16.5	478,183	20,293	0.0424	0.9576	88.62
17.5	465,660	6,990	0.0150	0.9850	84.86
18.5	965,467	26,904	0.0279	0.9721	83.59
19.5	2,187,839	34,683	0.0159	0.9841	81.26
20.5	2,188,728	16,804	0.0077	0.9923	79.97
21.5	2,209,278	14,350	0.0065	0.9935	79.35
22.5	879,147	47,460	0.0540	0.9460	78.84
23.5	711,084	1,801	0.0025	0.9975	74.58
24.5	1,007,851	4,204	0.0042	0.9958	74.39
25.5	708,877	30,315	0.0428	0.9572	74.08
26.5	160,048	10,528	0.0658	0.9342	70.92
27.5	300,605	3,491	0.0116	0.9884	66.25
28.5	316,039	22,313	0.0706	0.9294	65.48
29.5	263,224		0.0000	1.0000	60.86
30.5	395,542	22,157	0.0560	0.9440	60.86
31.5	265,814	1,978	0.0074	0.9926	57.45
32.5	731,115	26,806	0.0367	0.9633	57.02
33.5	670,214	13,867	0.0207	0.9793	54.93
34.5	614,752	4,770	0.0078	0.9922	53.79
35.5	730,592	4,945	0.0068	0.9932	53.38
36.5	721,235	251	0.0003	0.9997	53.02
37.5	930,596	27,462	0.0295	0.9705	53.00
38.5	892,915	53	0.0001	0.9999	51.43

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 380 TREATMENT AND DISPOSAL EQUIPMENT

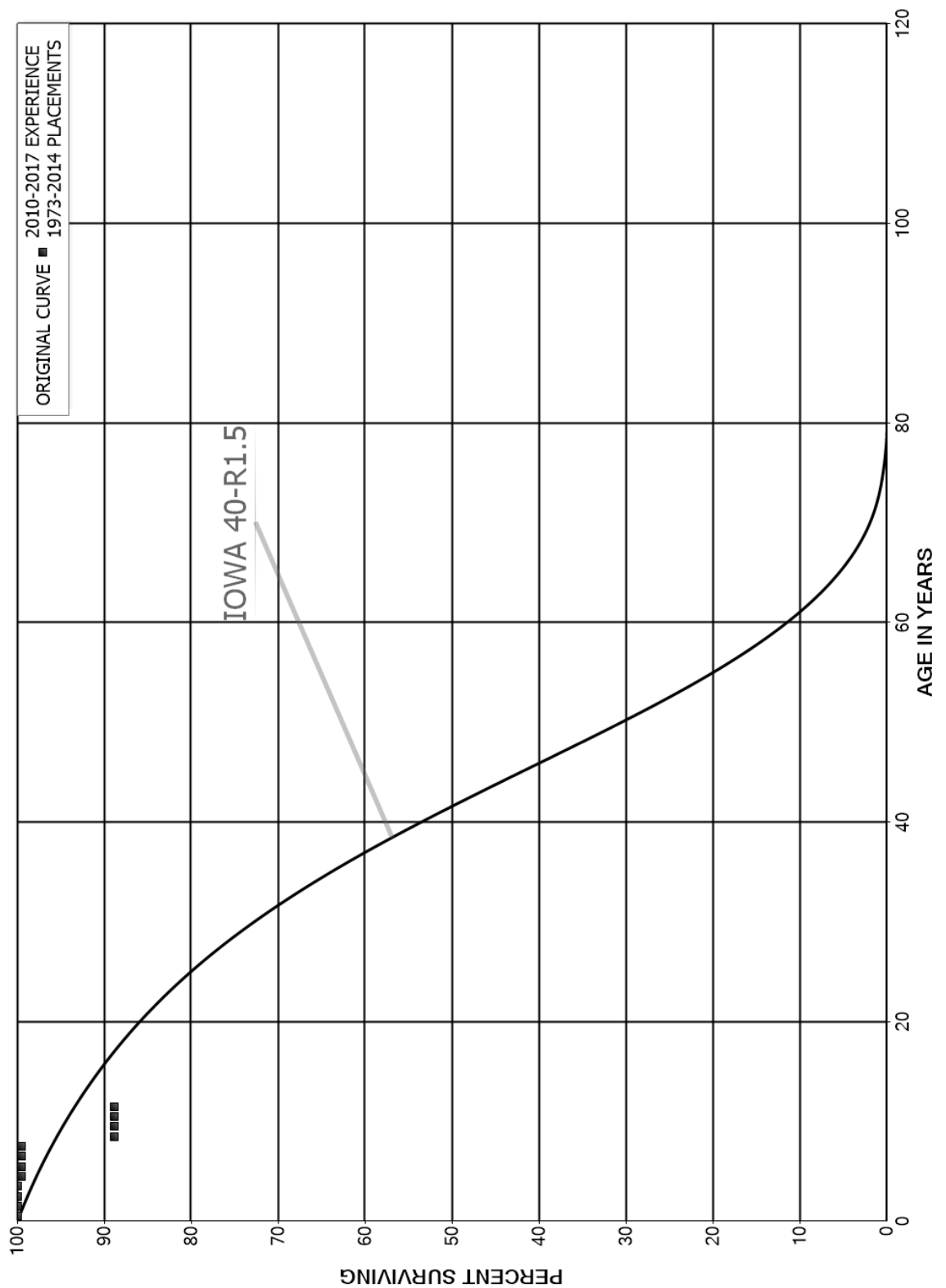
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1970-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,168,274	134	0.0001	0.9999	51.43
40.5	1,172,732	4,299	0.0037	0.9963	51.42
41.5	1,168,433	22,069	0.0189	0.9811	51.24
42.5	1,146,365	18,264	0.0159	0.9841	50.27
43.5	990,877	56,252	0.0568	0.9432	49.47
44.5	684,491	45,609	0.0666	0.9334	46.66
45.5	74,364		0.0000	1.0000	43.55
46.5	74,364	254	0.0034	0.9966	43.55
47.5					43.40

AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNTS 381.4 AND 381.5 PLANT SEWERS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNTS 381.4 AND 381.5 PLANT SEWERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1973-2014

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	48,618		0.0000	1.0000	100.00
0.5	59,837		0.0000	1.0000	100.00
1.5	72,616		0.0000	1.0000	100.00
2.5	96,852		0.0000	1.0000	100.00
3.5	118,414	584	0.0049	0.9951	100.00
4.5	86,095		0.0000	1.0000	99.51
5.5	86,095		0.0000	1.0000	99.51
6.5	86,095		0.0000	1.0000	99.51
7.5	83,846	8,988	0.1072	0.8928	99.51
8.5	63,640		0.0000	1.0000	88.84
9.5	51,445		0.0000	1.0000	88.84
10.5	27,208		0.0000	1.0000	88.84
11.5					88.84
12.5					
13.5					
14.5					
15.5					
16.5					
17.5					
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5					
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5					
37.5					
38.5					

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNTS 381.4 AND 381.5 PLANT SEWERS

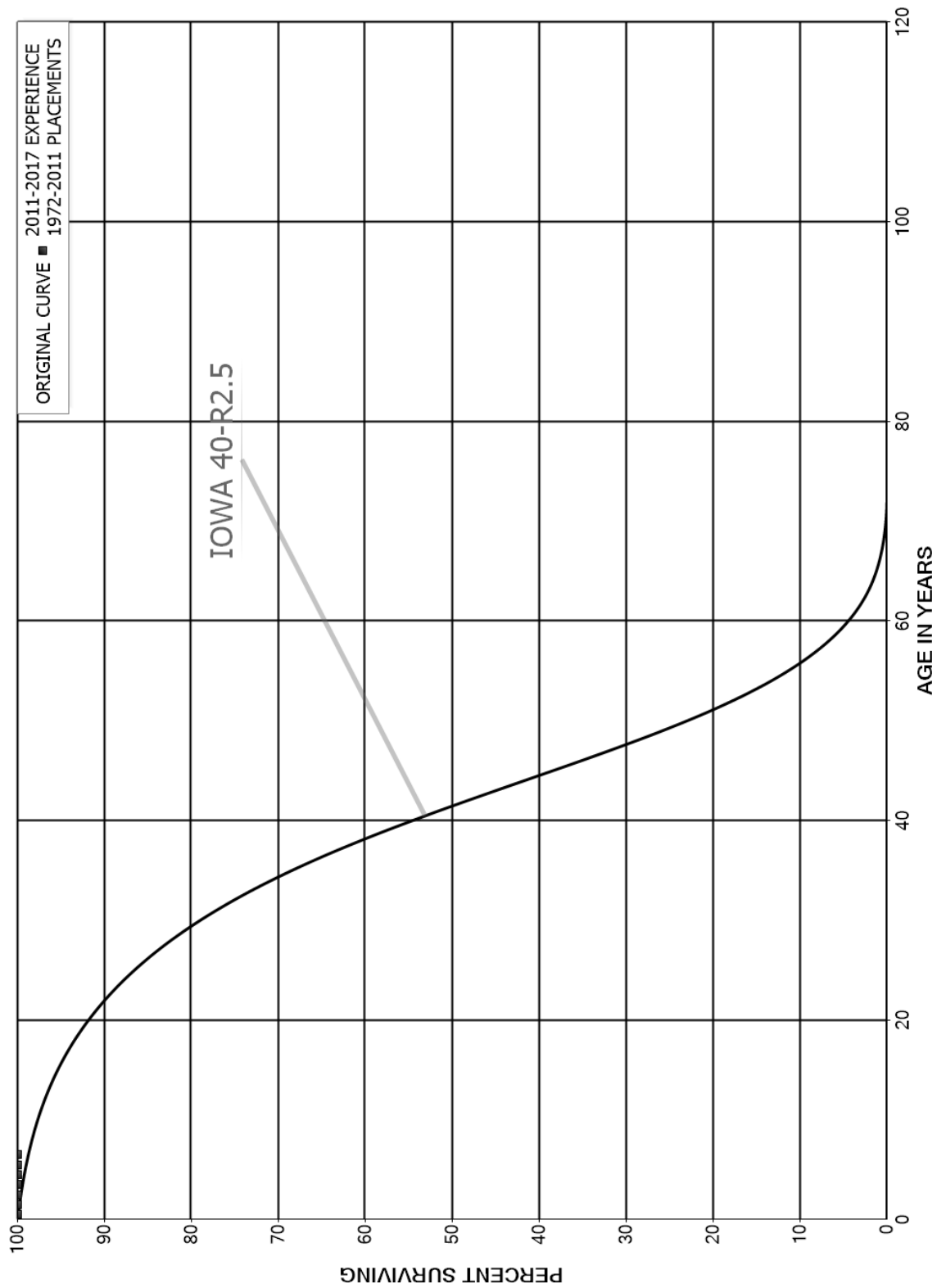
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1973-2014

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	5,163		0.0000		
40.5	5,163		0.0000		
41.5	5,163		0.0000		
42.5	5,163		0.0000		
43.5	5,163		0.0000		
44.5					

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS
ACCOUNT 382 OUTFALL LINES
ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 382 OUTFALL LINES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1972-2011

EXPERIENCE BAND 2011-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	7,619		0.0000	1.0000	100.00
0.5	7,619		0.0000	1.0000	100.00
1.5	7,619		0.0000	1.0000	100.00
2.5	7,619		0.0000	1.0000	100.00
3.5	7,619		0.0000	1.0000	100.00
4.5	7,619		0.0000	1.0000	100.00
5.5	7,619		0.0000	1.0000	100.00
6.5					100.00
7.5	20,192		0.0000		
8.5	20,192		0.0000		
9.5	35,788		0.0000		
10.5	35,788		0.0000		
11.5	35,788		0.0000		
12.5	35,788		0.0000		
13.5	35,788		0.0000		
14.5					
15.5					
16.5					
17.5					
18.5					
19.5					
20.5					
21.5					
22.5					
23.5					
24.5					
25.5					
26.5					
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5					
37.5					
38.5	9,638		0.0000		

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 382 OUTFALL LINES

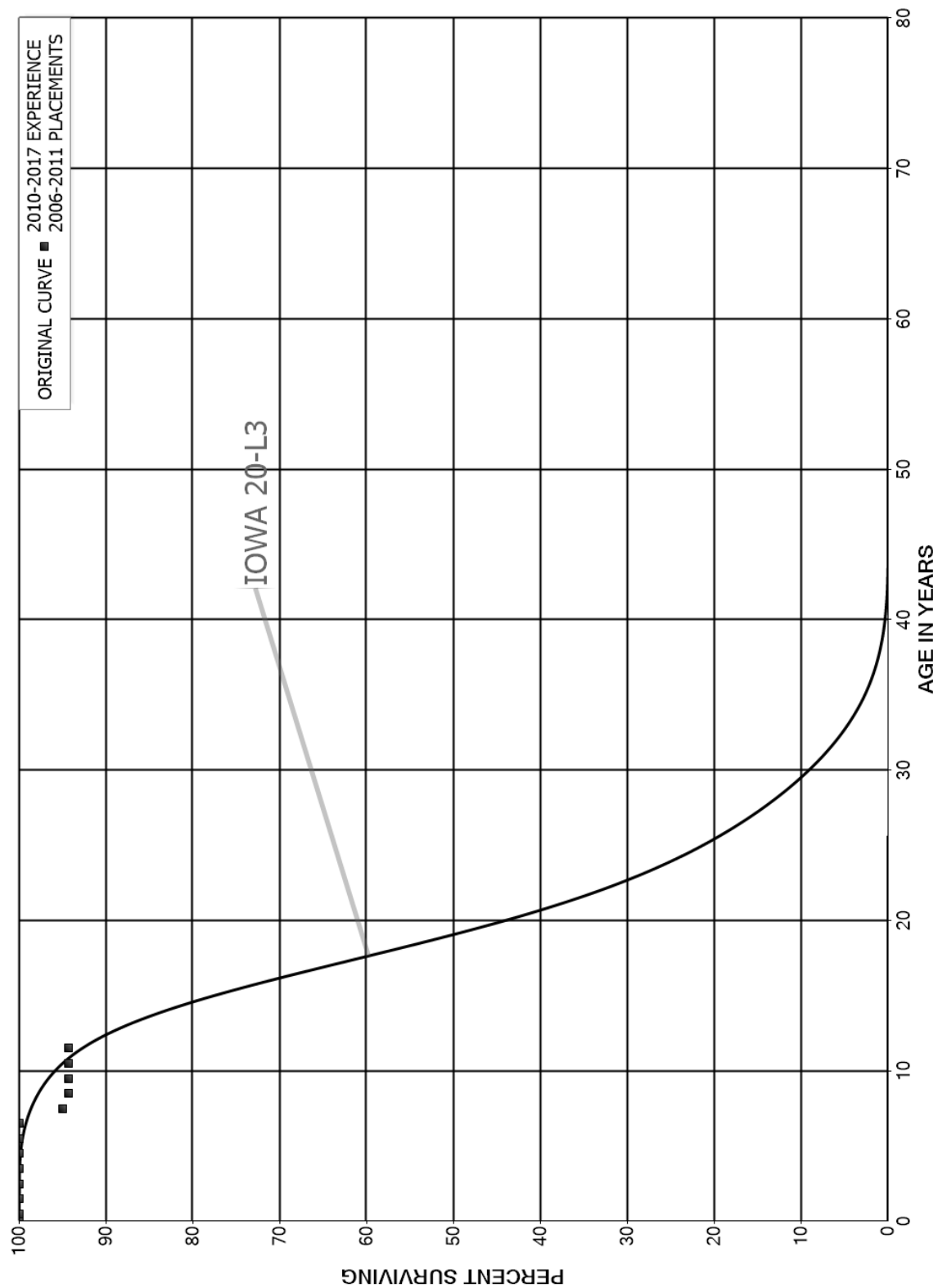
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1972-2011

EXPERIENCE BAND 2011-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	14,801		0.0000		
40.5	14,801		0.0000		
41.5	14,801		0.0000		
42.5	14,801		0.0000		
43.5	14,801		0.0000		
44.5	9,638		0.0000		
45.5					

AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNT 389.2 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - COLLECTION
 ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 389.2 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - COLLECTION

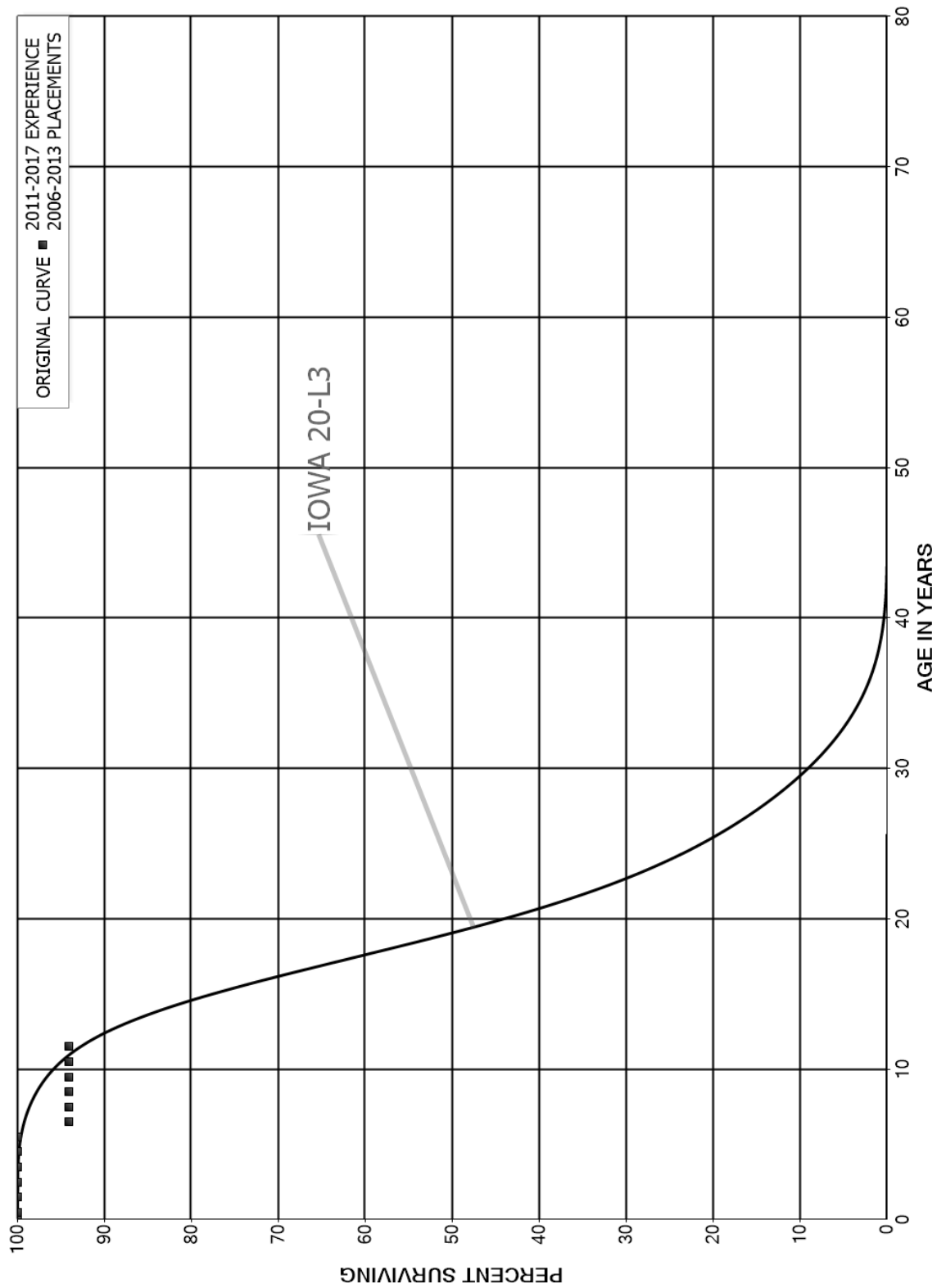
ORIGINAL LIFE TABLE

PLACEMENT BAND 2006-2011

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	358,061		0.0000	1.0000	100.00
0.5	358,061		0.0000	1.0000	100.00
1.5	358,061		0.0000	1.0000	100.00
2.5	358,061		0.0000	1.0000	100.00
3.5	699,183		0.0000	1.0000	100.00
4.5	699,183		0.0000	1.0000	100.00
5.5	699,183		0.0000	1.0000	100.00
6.5	697,664	35,151	0.0504	0.9496	100.00
7.5	341,122	2,624	0.0077	0.9923	94.96
8.5	338,498		0.0000	1.0000	94.23
9.5	338,498		0.0000	1.0000	94.23
10.5	329,059		0.0000	1.0000	94.23
11.5					94.23

AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS
ACCOUNT 389.3 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - PUMPING
ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 389.3 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - PUMPING

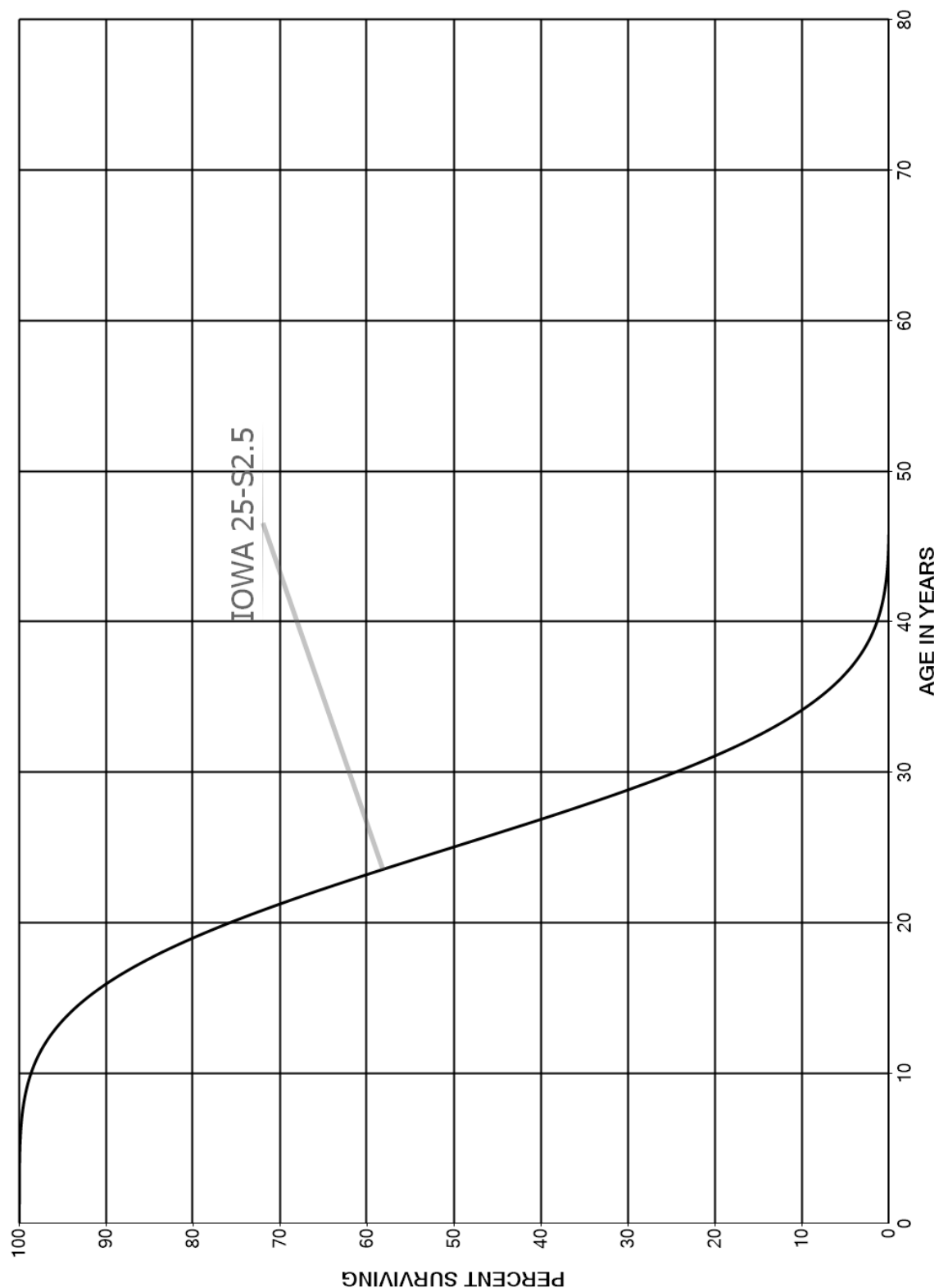
ORIGINAL LIFE TABLE

PLACEMENT BAND 2006-2013

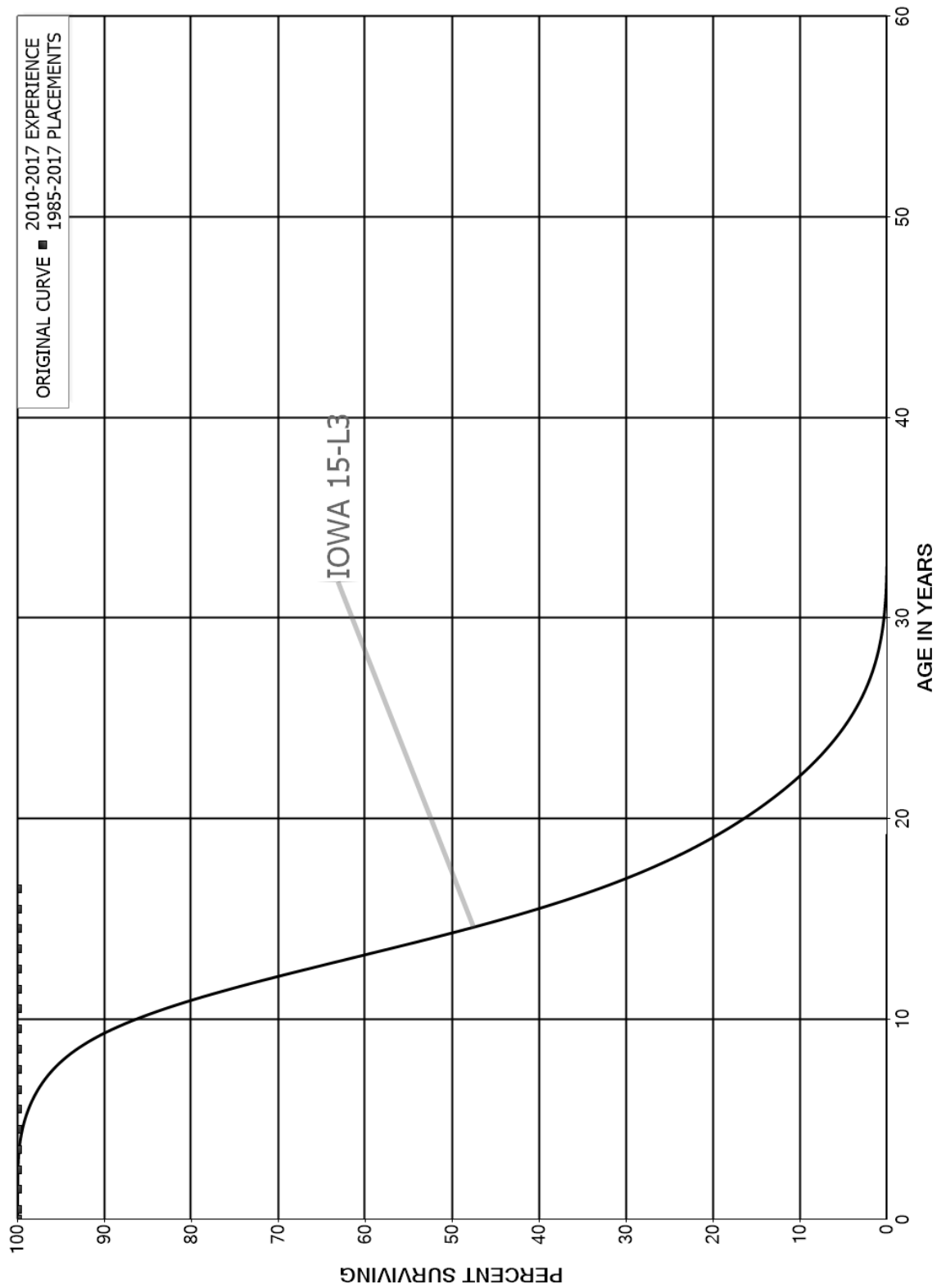
EXPERIENCE BAND 2011-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	48,489		0.0000	1.0000	100.00
0.5	48,489		0.0000	1.0000	100.00
1.5	49,019		0.0000	1.0000	100.00
2.5	49,425		0.0000	1.0000	100.00
3.5	51,999		0.0000	1.0000	100.00
4.5	19,941		0.0000	1.0000	100.00
5.5	21,572	1,289	0.0598	0.9402	100.00
6.5	18,882		0.0000	1.0000	94.02
7.5	18,476		0.0000	1.0000	94.02
8.5	17,124		0.0000	1.0000	94.02
9.5	16,105		0.0000	1.0000	94.02
10.5	12,722		0.0000	1.0000	94.02
11.5					94.02

AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNT 389.4 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - TREATMENT AND DISPOSAL
 SMOOTH SURVIVOR CURVE



AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNT 391 TRANSPORTATION EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 391 TRANSPORTATION EQUIPMENT

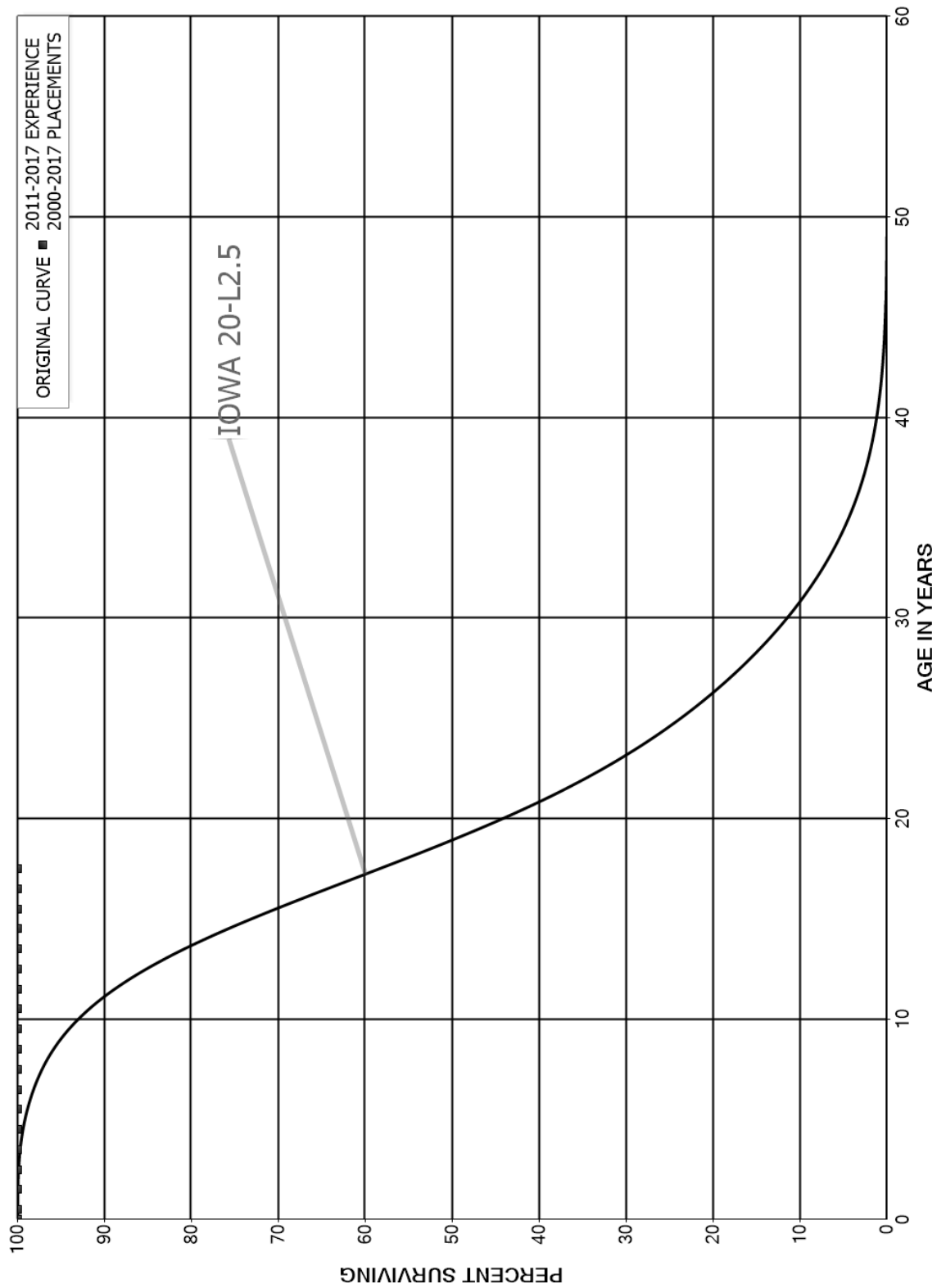
ORIGINAL LIFE TABLE

PLACEMENT BAND 1985-2017

EXPERIENCE BAND 2010-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	245,886		0.0000	1.0000	100.00
0.5	150,034		0.0000	1.0000	100.00
1.5	96,065		0.0000	1.0000	100.00
2.5	153,794		0.0000	1.0000	100.00
3.5	156,001		0.0000	1.0000	100.00
4.5	67,667		0.0000	1.0000	100.00
5.5	32,509		0.0000	1.0000	100.00
6.5	16,690		0.0000	1.0000	100.00
7.5	0		0.0000	1.0000	100.00
8.5	0		0.0000	1.0000	100.00
9.5	0		0.0000	1.0000	100.00
10.5	0		0.0000	1.0000	100.00
11.5	0		0.0000	1.0000	100.00
12.5	0		0.0000	1.0000	100.00
13.5	0		0.0000	1.0000	100.00
14.5	0		0.0000	1.0000	100.00
15.5	0		0.0000	1.0000	100.00
16.5					100.00
17.5					
18.5					
19.5					
20.5	12,000		0.0000		
21.5	12,000		0.0000		
22.5	12,000		0.0000		
23.5	30,000		0.0000		
24.5	30,000		0.0000		
25.5	30,000		0.0000		
26.5	12,000		0.0000		
27.5	12,000		0.0000		
28.5	0		0.0000		
29.5	0		0.0000		
30.5	0		0.0000		
31.5	0		0.0000		
32.5					

AQUA PENNSYLVANIA, INC.
 ALL OTHER WASTEWATER OPERATIONS
 ACCOUNT 395 POWER OPERATED EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



AQUA PENNSYLVANIA, INC.
ALL OTHER WASTEWATER OPERATIONS

ACCOUNT 395 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2000-2017

EXPERIENCE BAND 2011-2017

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	31,894		0.0000	1.0000	100.00
0.5	25,379		0.0000	1.0000	100.00
1.5	25,379		0.0000	1.0000	100.00
2.5	29,146		0.0000	1.0000	100.00
3.5	35,489		0.0000	1.0000	100.00
4.5	39,705		0.0000	1.0000	100.00
5.5	101,182		0.0000	1.0000	100.00
6.5	85,120		0.0000	1.0000	100.00
7.5	121,064		0.0000	1.0000	100.00
8.5	117,705		0.0000	1.0000	100.00
9.5	111,075		0.0000	1.0000	100.00
10.5	46,138		0.0000	1.0000	100.00
11.5	42,694		0.0000	1.0000	100.00
12.5	42,033		0.0000	1.0000	100.00
13.5	39,049		0.0000	1.0000	100.00
14.5	30,076		0.0000	1.0000	100.00
15.5	30,076		0.0000	1.0000	100.00
16.5	30,076		0.0000	1.0000	100.00
17.5					100.00

PART VII. DETAILED DEPRECIATION CALCULATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED
RELATED TO ORIGINAL COST AS OF MARCH 31, 2022

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
1978	12,371	7,333	5,038	5,038	0.1
1990	3,488,903	1,715,361	1,773,542	1,778,580	36.0
1993	829,994	363,360	466,634	2,245,214	45.5
1995	393,180	186,789	206,391	2,451,605	49.7
1998	18,247	6,743	11,504	2,463,109	49.9
2001	274,988	117,335	157,653	2,620,762	53.1
2006	291,360	100,889	190,471	2,811,232	56.9
2011	1,961,299	426,822	1,534,477	4,345,709	88.0
2012	48,536	7,978	40,558	4,386,267	88.8
2014	53,863	7,125	46,738	4,433,005	89.8
2015	65,903	17,244	48,659	4,481,664	90.8
2020	447,322	27,594	419,728	4,901,392	99.3
2021	27,504	446	27,058	4,928,451	99.8
2022	9,168	25	9,143	4,937,594	100.0
SUBTOTAL	7,922,638	2,985,043	4,937,596		
NONDEPRECIABLE	382,537				
TOTAL	8,305,175	2,985,043	4,937,596		

UTILITY PLANT IN SERVICE

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 354.2 STRUCTURES AND IMPROVEMENTS - COLLECTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0.5						
NET SALVAGE PERCENT.. 0						
2011	1,961,298.58	474,438	426,822	1,534,477	33.69	45,547
	1,961,298.58	474,438	426,822	1,534,477		45,547
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						33.7 2.32

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 354.3 STRUCTURES AND IMPROVEMENTS - PUMPING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-S1						
NET SALVAGE PERCENT.. 0						
1990	47,507.01	25,340	28,599	18,908	27.77	681
1995	114,413.91	53,866	60,794	53,620	30.07	1,783
2001	132,442.30	51,123	57,698	74,744	33.01	2,264
2006	155,648.31	47,800	53,948	101,701	35.53	2,862
	450,011.53	178,129	201,039	248,973		7,590
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						32.8 1.69

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 355.4 POWER GENERATING EQUIPMENT - TREATMENT AND DISPOSAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-R2.5						
NET SALVAGE PERCENT.. 0						
1995	22,006.42	18,661	17,908	4,098	4.79	856
2001	22,167.39	16,328	15,669	6,498	7.42	876
2006	26,245.45	15,915	15,273	10,972	10.22	1,074
2015	50,889.33	15,150	14,539	36,350	15.93	2,282
	121,308.59	66,054	63,389	57,920		5,088
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.4 4.19

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 360 COLLECTION MAINS - FORCE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R2.5						
NET SALVAGE PERCENT.. 0						
1978	12,371.32	7,090	7,333	5,038	32.59	155
1990	268,673.46	118,566	122,638	146,035	40.19	3,634
1993	13,922.15	5,644	5,838	8,084	42.17	192
1995	224,862.52	85,403	88,336	136,527	43.68	3,126
2001	75,239.45	22,798	23,581	51,658	47.74	1,082
2006	77,473.59	18,299	18,927	58,547	50.92	1,150
	672,542.49	257,800	266,653	405,890		9,339
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						43.5 1.39

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 361 COLLECTION MAINS - GRAVITY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R2.5						
NET SALVAGE PERCENT.. 0						
1990	2,799,244.94	1,235,307	1,334,951	1,464,294	40.19	36,434
1993	816,071.82	330,836	357,522	458,550	42.17	10,874
1998	18,246.67	6,240	6,743	11,504	45.69	252
2001	2,348.25	712	769	1,579	47.74	33
2006	3,207.70	758	819	2,389	50.92	47
2012	48,535.62	7,382	7,978	40,558	54.35	746
2014	53,863.29	6,593	7,125	46,738	55.54	842
2020	16,176.03	484	523	15,653	56.73	276
	3,757,694.32	1,588,312	1,716,430	2,041,264		49,504
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						41.2 1.32

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 363 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R4						
NET SALVAGE PERCENT.. 0						
1990	345,952.25	162,563	205,328	140,624	35.82	3,926
1995	19,903.16	7,933	10,020	9,883	40.36	245
2001	34,421.18	10,712	13,530	20,891	45.92	455
2006	18,075.03	4,298	5,429	12,646	50.48	251
2020	3,509.91	93	117	3,393	64.04	53
2021	18,999.25	217	274	18,725	65.04	288
2022	6,333.16	12	15	6,318	65.66	96
	447,193.94	185,828	234,713	212,481		5,314
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 40.0 1.19						

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 364 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-S2.5						
NET SALVAGE PERCENT.. 0						
2006	1,184.89	746	455	730	9.25	79
2015	15,013.68	4,438	2,705	12,309	16.08	765
2021	8,505.21	282	172	8,333	21.87	381
2022	2,835.25	16	9	2,826	22.50	126
	27,539.03	5,482	3,341	24,198		1,351
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.9 4.91						

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 371.3 PUMPING EQUIPMENT - PUMPING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-L0.5						
NET SALVAGE PERCENT.. 0						
1990	27,525.08	21,150	23,845	3,680	9.57	385
1995	11,994.40	8,631	9,731	2,263	10.42	217
2001	8,368.93	5,400	6,088	2,281	11.41	200
2006	9,524.87	5,356	6,038	3,487	12.26	284
2020	63,541.01	7,117	8,024	55,517	13.88	4,000
	120,954.29	47,654	53,726	67,228		5,086
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.2 4.20

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 380 TREATMENT AND DISPOSAL EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-S0						
NET SALVAGE PERCENT.. 0						
2018	527.40	70	207-	734	24.42	30
2020	13,435.57	896	2,653-	16,089	24.50	657
2021	124,629.50	3,714	10,996-	135,626	24.38	5,563
2022	50,443.33	257	760-	51,204	24.33	2,105
	189,035.80	4,937	14,616-	203,652		8,355
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.4 4.42

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 396.7 COMMUNICATION EQUIPMENT - SCADA

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2020	175,059.52	30,635	33,547	141,513	8.25	17,153
	175,059.52	30,635	33,547	141,513		17,153
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.3						9.80

**PART VIII. EXPERIENCED AND ESTIMATED
NET SALVAGE**

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

EXPERIENCED AND ESTIMATED RETIREMENTS BY ACCOUNT AND ASSOCIATED
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2017 TRANSACTION YEAR				
2018 TRANSACTION YEAR				
2019 TRANSACTION YEAR				
354.40	2,265.38			
	2,265.38			
2020 TRANSACTION YEAR				
354.20	1,332.26			
371.30	20,865.62			
	22,197.88			
2021 TRANSACTION YEAR				
363.00		142.06		142.06-
380.00		983.80		983.80-
		1,125.86		1,125.86-
TOTAL	24,463.26	1,125.86		1,125.86-

Exhibit No. 6-D, Part III
Docket No. R-2021-3027385
Docket No. R-2021-3027386
Witness: J. J. Spanos

AQUA PENNSYLVANIA, INC.

BRYN MAWR, PENNSYLVANIA

EAST BRADFORD OPERATIONS

2023 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WASTEWATER PLANT
AS OF MARCH 31, 2023

Prepared by:



*Excellence Delivered **As Promised***

Exhibit No. 6-D, Part III
Docket No. R-2021-3027385
Docket No. R-2021-3027386
Witness: J. J. Spanos

AQUA PENNSYLVANIA, INC.

Bryn Mawr, Pennsylvania

EAST BRADFORD OPERATIONS

2023 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WASTEWATER PLANT
AS OF MARCH 31, 2023

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



*Excellence Delivered **As Promised***

August 13, 2021

Aqua Pennsylvania, Inc.
762 Lancaster Avenue
Bryn Mawr, PA 19010

Attention: William C. Packer
Vice President, Regulatory Accounting & Regional Controller

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of March 31, 2023 for the East Bradford Operations. The results of our study as of March 31, 2022 are presented in our report titled "2022 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of March 31, 2022". The same methods, procedures and estimates are used in both studies.

Summaries of the original cost, annual accruals, book depreciation reserve and amortization of net salvage are presented in Tables 1 through 4, beginning on page I-3 of the attached report.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

A handwritten signature in black ink, reading "John J. Spanos".

JOHN J. SPANOS
President

JJS:mle

067880.100

Gannett Fleming Valuation and Rate Consultants, LLC

207 Senate Avenue • Camp Hill, PA 17011-2316

t: 717.763.7211 • f: 717.763.4590

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PART I. RESULTS OF STUDY

AQUA PENNSYLVANIA, INC.
DEPRECIATION STUDY
PART I. RESULTS OF STUDY

DESCRIPTION OF SUMMARY TABULATIONS

Tables 1 through 4 presented on pages I-3 through I-6 summarize the results of the depreciation study as of March 31, 2023 for the East Bradford Operations system. Table 1 sets forth, by depreciable group, the estimated survivor curve, original cost, book depreciation reserve as of March 31, 2023, future book accruals, calculated annual accrual amount and rate, and composite remaining life for plant in service. Table 2 presents the bringforward of the book reserve to March 31, 2023. Table 3 sets forth the calculation of the depreciation accruals for the twelve months ended March 31, 2023. Table 4 presents the annual amortization of experienced and estimated net salvage based on the period 2018 through 2022.

DESCRIPTION OF DETAILED TABULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-2. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage and cost of removal are set forth by account for the years 2018 through 2022, beginning on page III-2.

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED
ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF MARCH 31, 2023

DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	ORIGINAL COST AS OF MARCH 31, 2023 (3)	BOOK DEPRECIATION RESERVE (4)	FUTURE ACCRUALS (5)	CALCULATED ANNUAL ACCRUAL		COMPOSITE REMAINING LIFE (8)=(5)/(6)
					AMOUNT (6)	RATE (7)=(6)/(3)	
INTANGIBLE PLANT							
351.00 ORGANIZATION	NONDEPR.	324,739.75					
TOTAL INTANGIBLE PLANT		324,739.75					
NONDEPRECIABLE PLANT							
353.30 LAND AND LAND RIGHTS - PUMPING	NONDEPR.	57,797.65					
TOTAL NONDEPRECIABLE PLANT		57,797.65					
DEPRECIABLE PLANT							
354.00 STRUCTURES AND IMPROVEMENTS							
COLLECTION	55-S0.5	1,961,298.58	472,324	1,488,975	44,714	2.28	33.3
PUMPING	60-S1	450,011.53	208,644	241,368	7,498	1.67	32.2
TOTAL ACCOUNT 354		2,411,310.11	680,968	1,730,343	52,212		
355.00 POWER GENERATING EQUIPMENT							
TREATMENT AND DISPOSAL	25-R2.5	121,308.59	68,472	52,837	4,804	3.96	11.0
TOTAL ACCOUNT 355		121,308.59	68,472	52,837	4,804		
360.00 COLLECTION MAINS - FORCE	75-R2.5	672,044.68	276,250	395,795	9,269	1.38	42.7
361.00 COLLECTION MAINS - GRAVITY	75-R2.5	3,757,694.32	1,766,032	1,991,663	48,874	1.30	40.8
363.00 SERVICES	70-R4	471,329.71	239,165	232,165	5,700	1.21	40.7
364.00 METERS	25-S2.5	27,539.03	4,694	22,845	1,336	4.85	17.1
371.30 PUMPING EQUIPMENT							
PUMPING	25-L0.5	120,954.29	58,806	62,148	4,691	3.88	13.2
TOTAL ACCOUNT 371.3		120,954.29	58,806	62,148	4,691		
380.00 TREATMENT AND DISPOSAL EQUIPMENT	40-S0	330,189.39	(13,842)	344,032	14,087	4.27	24.4
396.70 COMMUNICATION EQUIPMENT - SCADA	10-SQ	175,059.52	51,052	124,007	17,104	*	7.3
TOTAL DEPRECIABLE PLANT		8,087,429.64	3,131,596	4,955,835	158,077		
AMORTIZATION OF NET SALVAGE					475		
TOTAL WASTEWATER PLANT IN SERVICE		8,469,967.04	3,131,596	4,955,835	158,552		

* ACCRUALS CALCULATED FOR EACH ASSET BY THE COMPANY'S PROPERTY RECORD SYSTEM USING THE AMORTIZATION PERIOD SET FORTH IN COLUMN 2.



AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

TABLE 2. BRINGFORWARD TO MARCH 31, 2023 OF THE BOOK RESERVE AS OF MARCH 31, 2022

ACCOUNT (1)	BOOK RESERVE AS OF MARCH 31, 2022 (2)	+	DEPRECIATION ACCRUALS (3)	+	AMORTIZATION OF NET SALVAGE (4)	-	PROJECTED RETIREMENTS (5)	+	PROJECTED GROSS SALVAGE (6)	-	PROJECTED COST OF REMOVAL (7)	=	BOOK RESERVE AS OF MARCH 31, 2023 (8)
354.20	426,822		45,502										472,324
354.30	201,039		7,605										208,644
355.40	63,389		5,083										68,472
360.00	266,653		9,345				(252)						276,250
361.00	1,716,430		49,602										1,766,032
363.00	234,713		5,465		38		864				187		239,165
364.00	3,341		1,352										4,694
371.30	53,726		5,080										58,806
380.00	(14,616)		11,475		250		9,971				979		(13,842)
396.70	33,547		17,506										51,052
TOTAL	2,985,043		158,015		288		10,583		0		1,166		3,131,596

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

TABLE 3. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED MARCH 31, 2023

ACCOUNT (1)	ORIGINAL COST AS OF MARCH 31, 2022 (2)	ORIGINAL COST AS OF MARCH 31, 2023 (3)	ANNUAL ACCRUAL RATE (4)	ANNUAL ACCRUAL AMOUNT * (5)
UTILITY PLANT IN SERVICE				
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	1,961,298.58	1,961,298.58	2.32	45,502
354.30 STRUCTURES AND IMPROVEMENTS - PUMPING	450,011.53	450,011.53	1.69	7,605
355.40 POWER GENERATING EQUIPMENT - TREATMENT AND DISPOSAL	121,308.59	121,308.59	4.19	5,083
360.00 COLLECTION MAINS - FORCE	672,542.49	672,044.68	1.39	9,345
361.00 COLLECTION MAINS - GRAVITY	3,757,694.32	3,757,694.32	1.32	49,602
363.00 SERVICES	447,193.94	471,329.71	1.19	5,465
364.00 METERS	27,539.03	27,539.03	4.91	1,352
371.30 PUMPING EQUIPMENT - PUMPING	120,954.29	120,954.29	4.20	5,080
380.00 TREATMENT AND DISPOSAL EQUIPMENT	189,035.80	330,189.39	4.42	11,475
396.70 COMMUNICATION EQUIPMENT - SCADA	175,059.52	175,059.52	10.00 **	17,506
TOTAL PLANT IN SERVICE	7,922,638.09	8,087,429.64		158,015

* ANNUAL ACCRUAL AMOUNT BASED ON MONTHLY AVERAGES

** ACCRUAL RATE BASED ON AMORTIZATION PERIOD

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

TABLE 4. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT (1)	2018			2019			2020			2021			2022			NET SALVAGE (12)*	SALVAGE ACCURAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	+	GROSS SALVAGE (4)	COST OF REMOVAL (5)	+	GROSS SALVAGE (6)	COST OF REMOVAL (7)	+	GROSS SALVAGE (8)	COST OF REMOVAL (9)	+	GROSS SALVAGE (10)	COST OF REMOVAL (11)	=		
363.00											142.06			187.54		(329.60)	(66)
380.00											983.80			1,062.54		(2,046.34)	(409)
TOTAL	-	-	-	-	-	-	-	-	-	-	1,125.86	-	-	1,250.08	-	(2,375.94)	(475)

* COLUMN (12) EQUALS THE SUMMATION OF COLUMNS (2) THROUGH (11).

PART II. DETAILED DEPRECIATION CALCULATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED
RELATED TO ORIGINAL COST AS OF MARCH 31, 2023

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
1978	12,371	7,468	4,903	4,903	0.1
1990	3,488,092	1,759,043	1,729,049	1,733,953	35.0
1993	829,994	374,403	455,591	2,189,544	44.2
1995	393,154	193,361	199,793	2,389,337	48.2
1998	18,247	7,048	11,199	2,400,536	48.4
2001	274,966	122,465	152,501	2,553,037	51.5
2006	290,857	106,591	184,266	2,737,302	55.2
2011	1,961,299	472,324	1,488,975	4,226,277	85.3
2012	48,536	8,763	39,773	4,266,050	86.1
2014	53,863	8,021	45,842	4,311,892	87.0
2015	65,903	20,460	45,443	4,357,335	87.9
2020	588,476	50,116	538,360	4,895,695	98.8
2021	27,504	1,096	26,408	4,922,103	99.3
2022	27,918	423	27,495	4,949,598	99.9
2023	6,250	15	6,235	4,955,835	100.0
SUBTOTAL	8,087,430	3,131,596	4,955,835		
NONDEPRECIABLE	382,537				
TOTAL	8,469,967	3,131,596	4,955,835		

UTILITY PLANT IN SERVICE

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 354.2 STRUCTURES AND IMPROVEMENTS - COLLECTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0.5						
NET SALVAGE PERCENT.. 0						
2011	1,961,298.58	511,507	472,324	1,488,975	33.30	44,714
	1,961,298.58	511,507	472,324	1,488,975		44,714
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						33.3 2.28

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 354.3 STRUCTURES AND IMPROVEMENTS - PUMPING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-S1						
NET SALVAGE PERCENT.. 0						
1990	47,507.01	25,982	29,278	18,229	27.13	672
1995	114,413.91	55,559	62,607	51,807	29.39	1,763
2001	132,442.30	53,295	60,055	72,387	32.30	2,241
2006	155,648.31	50,321	56,704	98,944	35.06	2,822
	450,011.53	185,157	208,644	241,368		7,498
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						32.2 1.67

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 355.4 POWER GENERATING EQUIPMENT - TREATMENT AND DISPOSAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-R2.5						
NET SALVAGE PERCENT.. 0						
1995	22,006.42	18,930	18,640	3,366	4.51	746
2001	22,167.39	16,827	16,569	5,598	6.90	811
2006	26,245.45	16,661	16,406	9,839	9.64	1,021
2015	50,889.33	17,119	16,857	34,033	15.29	2,226
	121,308.59	69,537	68,472	52,837		4,804
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.0						3.96

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 360 COLLECTION MAINS - FORCE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R2.5						
NET SALVAGE PERCENT.. 0						
1978	12,371.32	7,198	7,468	4,903	32.17	152
1990	268,673.46	121,440	125,994	142,679	39.71	3,593
1993	13,922.15	5,799	6,016	7,906	41.68	190
1995	224,862.52	88,596	91,919	132,944	42.68	3,115
2001	75,239.45	23,896	24,792	50,447	46.74	1,079
2006	76,975.78	19,336	20,061	56,915	49.92	1,140
	672,044.68	266,265	276,250	395,795		9,269
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						42.7 1.38

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 361 COLLECTION MAINS - GRAVITY

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R2.5						
NET SALVAGE PERCENT.. 0						
1990	2,799,244.94	1,265,259	1,371,325	1,427,920	39.71	35,959
1993	816,071.82	339,894	368,387	447,685	41.68	10,741
1998	18,246.67	6,503	7,048	11,199	44.69	251
2001	2,348.25	746	809	1,539	46.74	33
2006	3,207.70	806	874	2,334	49.92	47
2012	48,535.62	8,086	8,763	39,773	53.77	740
2014	53,863.29	7,401	8,021	45,842	54.94	834
2020	16,176.03	742	805	15,371	57.13	269
	3,757,694.32	1,629,437	1,766,032	1,991,663		48,874
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 40.8						1.30

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 363 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R4						
NET SALVAGE PERCENT.. 0						
1990	345,141.77	167,290	208,114	137,028	34.82	3,935
1995	19,877.06	8,219	10,225	9,652	39.36	245
2001	34,400.06	11,221	13,959	20,441	44.92	455
2006	18,069.52	4,570	5,685	12,385	49.48	250
2020	3,509.80	147	183	3,327	63.04	53
2021	18,998.77	505	628	18,371	64.04	287
2022	25,082.76	286	356	24,727	65.04	380
2023	6,249.97	12	15	6,235	65.66	95
	471,329.71	192,250	239,165	232,165		5,700

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 40.7 1.21

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 364 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-S2.5						
NET SALVAGE PERCENT.. 0						
2006	1,184.89	782	556	629	8.63	73
2015	15,013.68	5,073	3,603	11,411	15.19	751
2021	8,505.21	658	468	8,037	20.87	385
2022	2,835.25	94	67	2,769	21.87	127
	27,539.03	6,607	4,694	22,845		1,336
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.1 4.85						

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 371.3 PUMPING EQUIPMENT - PUMPING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-L0.5						
NET SALVAGE PERCENT.. 0						
1990	27,525.08	21,365	24,332	3,193	9.44	338
1995	11,994.40	8,754	9,970	2,024	10.27	197
2001	8,368.93	5,515	6,281	2,088	11.25	186
2006	9,524.87	5,536	6,305	3,220	12.07	267
2020	63,541.01	10,465	11,918	51,623	13.94	3,703
	120,954.29	51,635	58,806	62,148		4,691
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.2 3.88

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 380 TREATMENT AND DISPOSAL EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-S0						
NET SALVAGE PERCENT.. 0						
2018	491.60	81	79-	571	24.23	24
2020	11,895.07	1,200	1,171-	13,066	24.50	533
2021	118,208.33	7,884	7,697-	125,905	24.50	5,139
2022	161,850.49	4,823	4,708-	166,558	24.38	6,832
2023	37,743.90	192	187-	37,931	24.33	1,559
	330,189.39	14,180	13,842-	344,032		14,087
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.4 4.27

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

ACCOUNT 396.7 COMMUNICATION EQUIPMENT - SCADA

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF MARCH 31, 2023

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2020	175,059.52	48,141	51,052	124,007	7.25	17,104
	175,059.52	48,141	51,052	124,007		17,104
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.3						9.77

PART III. EXPERIENCED NET SALVAGE

AQUA PENNSYLVANIA, INC.
EAST BRADFORD OPERATIONS

EXPERIENCED AND ESTIMATED RETIREMENTS BY ACCOUNT AND ASSOCIATED
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2018 TRANSACTION YEAR				
2019 TRANSACTION YEAR				
354.40	2,265.38			
	2,265.38			
2020 TRANSACTION YEAR				
354.20	1,332.26			
371.30	20,865.62			
	22,197.88			
2021 TRANSACTION YEAR				
363.00		142.06		142.06-
380.00		983.80		983.80-
		1,125.86		1,125.86-
2022 TRANSACTION YEAR				
363.00		187.54		187.54-
380.00		1,062.54		1,062.54-
		1,250.08		1,250.08-
TOTAL	24,463.26	2,375.94		2,375.94-